

NASA's UNIVERSITY PROGRAM

ACTIVE PROJECTS

FISCAL YEAR 1998

Gary Gans, Project Manager

**National Aeronautics and Space Administration
Office of Human Resources and Education
Education Division/FE
Washington, DC 20546-0001**

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FOREWORD

As basic policy, NASA believes that colleges and universities should be encouraged to participate in the nation's space and aeronautics program to the maximum extent practicable. Indeed, universities are considered as partners with government and industry in the nation's aerospace program. NASA's objective is to have them bring their scientific, engineering, and social research competence to bear on aerospace problems and on the broader social, economic, and international implications of NASA's technical and scientific programs. It is expected that, in so doing, universities will strengthen both their research and their educational capabilities to contribute more effectively to the national well-being.

NASA field codes and certain Headquarters program offices provide funds for those activities in universities which contribute to the mission needs of that particular NASA element. Although NASA has no predetermined amount of money to devote to university activities, the effort funded each year is substantial. (See the bar chart on the next page). This annual report is one means of documenting the NASA-university relationship, frequently denoted, collectively, as NASA's University Program.

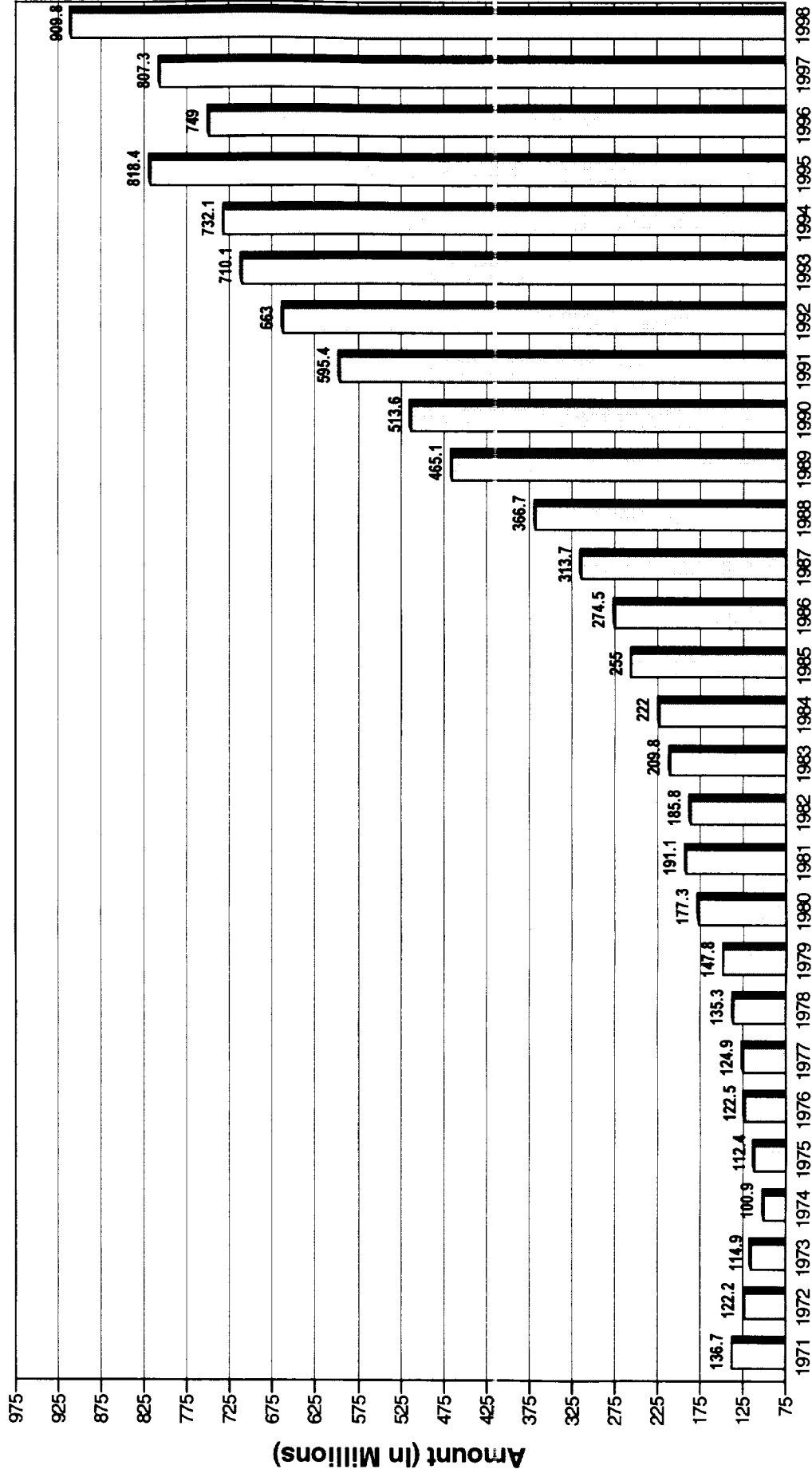
This report is consistent with agency accounting records, as the data is obtained from NASA's Financial and Contractual Status (FACS) System, operated by the Financial Management Division and the Procurement Office. However, in accordance with interagency agreements, the orientation differs from that required for financial or procurement purposes. Any apparent discrepancies between this report and other NASA procurement or financial reports stem from the selection criteria for the data.*

This report was prepared by the Education Division/FE, Office of Human Resources and Education, using a management information system which was modernized during FY 1993.

* Agreements which meet active criteria definition and have deobligations may result in agreements having negative obligations in the body of this publication.

NASA Obligations to Universities

Fiscal Years 1971-1998



Fiscal Years

NOTE: Excludes awards to California Institute of Technology for operation of the Jet Propulsion Laboratory.

FY 1971 includes \$15.0M in awards to Draper Lab.

FY 1973 includes \$5.2M in awards to Draper Lab.

FY 1972 includes \$5.7M in awards to Draper Lab.

FY 1974 Draper Lab status changed from "university" to "nonprofit."

FIFTY EDUCATIONAL INSTITUTIONS LISTED ACCORDING TO TOTAL OBLIGATIONS – FY 1998

| INSTITUTION | | OBLIGATIONS (THOUSANDS) | PERCENT |
|---------------|-----------------------------------------------------------|----------------------------|---------------|
| TOTALS | | \$909,824 | 100.00 |
| 1 | Johns Hopkins University | 90,658 | 9.96 |
| 2 | Stanford University | 70,216 | 7.72 |
| 3 | University of Colorado – Boulder | 46,209 | 5.08 |
| 4 | University of Maryland – College Park | 35,581 | 3.91 |
| 5 | Massachusetts Institute of Technology | 28,778 | 3.16 |
| 6 | University of California – Berkeley | 28,666 | 3.15 |
| 7 | New Mexico State University – Las Cruces | 26,330 | 2.89 |
| 8 | California Institute of Technology | 19,938 | 2.19 |
| 9 | University of Arizona | 18,384 | 2.02 |
| 10 | Wheeling Jesuit College | 15,499 | 1.70 |
| 11 | University of Alabama – Huntsville | 14,933 | 1.64 |
| 12 | Baylor College of Medicine | 13,669 | 1.50 |
| 13 | University of Alabama – Birmingham | 12,954 | 1.42 |
| 14 | Columbia University | 11,539 | 1.27 |
| 15 | University of California – San Diego | 11,147 | 1.23 |
| 16 | University of Washington | 10,987 | 1.21 |
| 17 | University of California – Los Angeles | 10,824 | 1.19 |
| 18 | University of Hawaii – Honolulu | 10,540 | 1.16 |
| 19 | Utah State University | 10,408 | 1.14 |
| 20 | University of Wisconsin – Madison | 10,404 | 1.14 |
| 21 | University of Alaska – Fairbanks | 10,081 | 1.11 |
| 22 | Pennsylvania State University – University Park | 9,815 | 1.08 |
| 23 | University of New Hampshire – Durham | 9,119 | 1.00 |
| 24 | University of Texas – Austin | 8,473 | 0.93 |
| 25 | University of Iowa | 8,096 | 0.89 |
| 26 | University of California – Santa Barbara | 7,231 | 0.79 |
| 27 | University of Virginia | 7,190 | 0.79 |
| 28 | Mississippi State University | 7,182 | 0.79 |
| 29 | Oklahoma State University | 6,997 | 0.77 |
| 30 | University of New Mexico – Albuquerque | 6,457 | 0.71 |
| 31 | Georgia Institute of Technology | 6,267 | 0.69 |
| 32 | Ohio State University | 5,935 | 0.65 |
| 33 | Princeton University | 5,898 | 0.65 |
| 34 | Hampton University | 5,774 | 0.63 |
| 35 | Florida A&M University | 5,447 | 0.60 |
| 36 | Harvard University | 5,429 | 0.60 |
| 37 | University of Michigan – Ann Arbor | 5,376 | 0.59 |
| 38 | Cornell University | 5,164 | 0.57 |
| 39 | Oregon State University | 5,159 | 0.57 |
| 40 | Boston University | 5,096 | 0.56 |
| 41 | University of Maryland – Baltimore County | 4,726 | 0.52 |
| 42 | University of Miami | 4,703 | 0.52 |
| 43 | University of Illinois – Urbana | 4,556 | 0.50 |
| 44 | San Jose State University | 4,406 | 0.48 |
| 45 | University of Florida | 4,378 | 0.48 |
| 46 | Old Dominion University | 4,288 | 0.47 |
| 47 | Texas A&M University | 3,977 | 0.44 |
| 48 | University of Chicago | 3,958 | 0.44 |
| 49 | Washington University – St. Louis | 3,865 | 0.42 |
| 50 | University of Puerto Rico – Mayagüez | 3,863 | 0.42 |
| | Other Colleges and Universities ** | 233,252 | 25.64 |

* Excludes awards to California Institute of Technology for operation of the Jet Propulsion Laboratory.

** Includes both foreign and domestic universities and colleges.

STATE AND U.S. TERRITORIES BY OBLIGATIONS
FISCAL YEAR 1998 (October 1, 1997 through September 30, 1998)

| STATE | | OBLIGATIONS (WHOLE DOLLARS) | PERCENT |
|---------------|----------------------|--------------------------------|---------------|
| TOTALS | | \$908,722,334 | 100.00 |
| 1 | California | 175,890,435 | 19.36 |
| 2 | Maryland | 136,196,190 | 14.99 |
| 3 | Colorado | 52,636,346 | 5.79 |
| 4 | Massachusetts | 45,270,074 | 4.98 |
| 5 | Texas | 44,200,411 | 4.86 |
| 6 | Alabama | 35,481,801 | 3.90 |
| 7 | New Mexico | 35,348,984 | 3.89 |
| 8 | New York | 30,937,611 | 3.40 |
| 9 | Florida | 27,154,265 | 2.99 |
| 10 | Virginia | 25,567,363 | 2.81 |
| 11 | Arizona | 21,630,597 | 2.38 |
| 12 | West Virginia | 18,690,335 | 2.06 |
| 13 | Pennsylvania | 17,987,349 | 1.98 |
| 14 | Ohio | 16,414,935 | 1.81 |
| 15 | Georgia | 15,956,594 | 1.76 |
| 16 | Utah | 12,348,237 | 1.36 |
| 17 | Washington | 11,782,553 | 1.30 |
| 18 | Wisconsin | 11,067,158 | 1.22 |
| 19 | Hawaii | 10,633,482 | 1.17 |
| 20 | New Hampshire | 10,418,604 | 1.15 |
| 21 | Illinois | 10,286,163 | 1.13 |
| 22 | Michigan | 10,285,573 | 1.13 |
| 23 | North Carolina | 10,180,857 | 1.12 |
| 24 | Alaska | 10,111,229 | 1.11 |
| 25 | New Jersey | 10,033,707 | 1.10 |
| 26 | Iowa | 9,536,251 | 1.05 |
| 27 | Mississippi | 8,934,488 | 0.98 |
| 28 | Oklahoma | 8,579,738 | 0.94 |
| 29 | District of Columbia | 8,352,681 | 0.92 |
| 30 | Oregon | 5,479,789 | 0.60 |
| 31 | Puerto Rico | 5,420,532 | 0.60 |
| 32 | Missouri | 5,344,664 | 0.59 |
| 33 | Louisiana | 5,326,167 | 0.59 |
| 34 | Tennessee | 5,085,138 | 0.56 |
| 35 | Kansas | 4,472,618 | 0.49 |
| 36 | Indiana | 3,863,721 | 0.43 |
| 37 | Minnesota | 3,809,993 | 0.42 |
| 38 | Rhode Island | 3,534,071 | 0.39 |
| 39 | North Dakota | 3,063,956 | 0.34 |
| 40 | Montana | 2,871,493 | 0.32 |
| 41 | Connecticut | 2,622,388 | 0.29 |
| 42 | South Carolina | 2,619,603 | 0.29 |
| 43 | Delaware | 2,362,084 | 0.26 |
| 44 | Nebraska | 2,339,741 | 0.26 |
| 45 | Kentucky | 1,671,879 | 0.18 |
| 46 | Arkansas | 1,562,556 | 0.17 |
| 47 | South Dakota | 1,420,246 | 0.16 |
| 48 | Maine | 1,068,034 | 0.12 |
| 49 | Nevada | 867,905 | 0.10 |
| 50 | Idaho | 849,645 | 0.09 |
| 51 | Wyoming | 691,908 | 0.08 |
| 52 | Vermont | 380,192 | 0.04 |
| 53 | Guam | 80,000 | 0.01 |

* Starting in FY 1993, Active Actions with deobligations will be reported in this chart.

RESEARCH AND DEVELOPMENT PERCENT CHANGE REPORT 1994-1998 *

| FIELDS OF SCIENCE | FY 1998 (\$1000) | % CHANGE FY 97-98 | FY 1997 (\$1000) | %CHANGE FY 96-97 | FY 1996 (\$1000) | %CHANGE FY 95-96 | FY 1995 (\$1000) | %CHANGE FY 94-95 | FY 1994 (\$1000) |
|-----------------------------------------|---------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| ALL FIELDS TOTAL | | | | | | | | | |
| Physical Sciences, Total | 786,597 | 9.40% | 719,008 | 8.20% | 664,507 | -4.34% | 694,690 | 8.30% | 641,462 |
| Astronomy | 343,314 | 18.22% | 290,413 | -7.50% | 313,954 | 13.29% | 277,134 | 13.40% | 244,391 |
| Chemistry | 202,138 | 46.99% | 137,522 | -17.15% | 165,989 | 25.94% | 131,800 | 18.74% | 110,996 |
| Physics | 10,401 | -13.88% | 12,078 | 280.65% | 3,173 | -45.57% | 5,930 | 7.43% | 5,427 |
| Physical Sciences, NEC ** | 111,857 | -7.42% | 120,828 | 3.86% | 116,336 | 13.86% | 102,176 | -0.37% | 102,551 |
| Mathematical & Computer Sciences, Total | 18,918 | -5.34% | 19,985 | -29.77% | 28,456 | -23.77% | 37,329 | 46.87% | 25,417 |
| Mathematics | 22,337 | -8.97% | 24,538 | -12.78% | 28,133 | -6.77% | 30,176 | 34.30% | 22,469 |
| Computer Sciences | 816 | -61.89% | 2,141 | 234.01% | 641 | -30.10% | 917 | 33.09% | 689 |
| Math. & Computer Sciences, NEC | 16,757 | -5.59% | 17,750 | -18.91% | 21,889 | -3.98% | 22,796 | 35.46% | 16,828 |
| Environmental Sciences, NEC | 4,764 | 2.52% | 4,647 | -17.06% | 5,603 | -13.29% | 6,462 | 30.49% | 4,952 |
| Engineering Total | 212,543 | 8.82% | 195,315 | 45.61% | 134,136 | -14.09% | 156,133 | 16.36% | 134,183 |
| Aeronautical | 59,650 | -17.79% | 72,557 | 36.73% | 53,064 | -14.17% | 61,826 | 8.44% | 57,012 |
| Atmospheric Sciences | 20,257 | 21.42% | 16,684 | -8.74% | 18,281 | -13.36% | 21,101 | -6.23% | 22,502 |
| Geological Sciences | 9,094 | -22.42% | 11,722 | 7.70% | 10,884 | -18.24% | 13,312 | -1.71% | 13,544 |
| Oceanography | 123,542 | 30.94% | 94,352 | 81.77% | 51,907 | -13.34% | 59,894 | 45.64% | 41,125 |
| Environmental Sciences, NEC | 105,231 | -2.71% | 108,159 | 10.07% | 98,268 | -28.84% | 138,095 | -12.74% | 158,263 |
| Aeronautical | 36,930 | -4.34% | 38,605 | 6.48% | 36,255 | -40.54% | 60,969 | -22.87% | 79,043 |
| Astronautical | 18,310 | 0.84% | 18,158 | 27.69% | 14,220 | 0.56% | 14,141 | 1.24% | 13,968 |
| Chemical | 1,813 | 3.36% | 1,754 | -2.72% | 1,803 | -39.29% | 2,970 | 7.69% | 2,758 |
| Civil | 0 | -100.00% | 321 | 73.51% | 185 | -85.02% | 1,235 | -1.44% | 1,253 |
| Electrical | 8,635 | -1.33% | 8,751 | -7.93% | 9,505 | 25.41% | 7,579 | -15.65% | 8,965 |
| Mechanical | 9,698 | -4.01% | 10,103 | -16.06% | 12,036 | 12.31% | 10,717 | -8.60% | 11,725 |
| Metallurgy and Materials | 10,863 | -18.73% | 13,366 | -0.46% | 13,428 | -31.97% | 19,737 | 17.99% | 16,728 |
| Engineering, NEC | 18,982 | 11.00% | 17,101 | 57.82% | 10,836 | -47.77% | 20,747 | -12.84% | 23,803 |
| Life Sciences, Total | 52,076 | -13.84% | 60,444 | -5.19% | 63,755 | 8.80% | 58,600 | 39.69% | 41,951 |
| Biological, Total | 15,640 | -20.85% | 19,759 | -48.71% | 38,527 | 21.89% | 31,608 | 22.14% | 25,879 |
| Biol. Sciences (Excluding Envir. Bio.) | 13,598 | -24.88% | 18,101 | -48.18% | 34,931 | 22.58% | 28,501 | 28.22% | 22,228 |
| Environmental Biology | 1,306 | 46.74% | 890 | -58.97% | 2,169 | 18.33% | 1,833 | 38.34% | 1,325 |
| Agricultural Sciences | 736 | -4.17% | 768 | -46.18% | 1,427 | 12.01% | 1,274 | -45.23% | 2,326 |
| Medical Sciences | 6,752 | 16.63% | 5,789 | -28.13% | 8,055 | -16.97% | 9,701 | 29.61% | 7,485 |
| Life Sciences, NEC | 29,684 | -14.94% | 34,896 | 103.20% | 17,173 | -0.68% | 17,291 | 101.36% | 8,587 |
| Psychology Total | 6,258 | 9.29% | 5,726 | 58.00% | 3,624 | -12.65% | 4,149 | -18.82% | 5,111 |
| Biological Aspects | 27 | 0.00% | 0 | 0.00% | 0 | -100.00% | 85 | 16.44% | 73 |
| Social Aspects | 1,146 | -5.37% | 1,211 | 132.44% | 521 | 96.60% | 265 | -33.25% | 397 |
| Psychological Sciences, NEC | 5,085 | 12.62% | 4,515 | 45.50% | 3,103 | -18.32% | 3,799 | -18.14% | 4,641 |
| Social Sciences, Total | 299 | 11.99% | 267 | 97.78% | 135 | -67.31% | 413 | 153.37% | 163 |
| Economics | 0 | -100.00% | 13 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 |
| History | 0 | 0.00% | 10 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 |
| Political Science | 0 | 0.00% | 52 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 |
| Social Sciences, NEC | 299 | 55.73% | 192 | 42.22% | 135 | -67.31% | 413 | 153.37% | 163 |
| Other Sciences, NEC | 44,539 | 30.44% | 34,146 | 51.75% | 22,502 | -24.97% | 29,990 | -14.15% | 34,931 |

Table does not include awards to foreign universities or awards to California Institute of Technology for operation of the Jet Propulsion Laboratories.

* This report does not include other activities related to science and engineering, R&D plant and equipment, nor training grants. ** NEC means Not Elsewhere Classified.

* This chart does not include agreements with Fiscal Year obligations less than zero.

Prior year's data are reviewed for consistency, and when necessary, are revised. Prior year's data should be restricted to this chart.

FY1998 OBLIGATIONS BY FIELD OF SCIENCE OR ENGINEERING

| | | | % OF ALL SCI. & ENGR. (% are rounded) |
|---------------------------------------------------------|-----------------------|--------------|---------------------------------------------|
| ENGINEERING | Total | % | |
| 41-AERONAUTICAL | \$ 54,506,864 | 43% | |
| 42-ASTRONAUTICAL | \$ 18,826,811 | 15% | |
| 43-CHEMICAL | \$ 2,060,869 | 2% | |
| 45-ELECTRICAL | \$ 8,807,791 | 7% | |
| 46-MECHANICAL | \$ 10,691,902 | 8% | |
| 47-METALLURGY&MATERIALS | \$ 11,014,216 | 9% | |
| ENGINEERING NEC* | \$ 21,428,512 | 17% | |
| Grand Total | \$ 127,336,965 | | 14% |
| PHYSICAL SCIENCES | Total | % | |
| 11-ASTRONOMY | \$ 205,645,359 | 59% | |
| 12-CHEMISTRY | \$ 10,527,292 | 3% | |
| 13-PHYSICS | \$ 112,728,783 | 32% | |
| 19-PHYS SCI-NEC* | \$ 19,747,375 | 6% | |
| Grand Total | \$ 348,648,809 | | 38% |
| MATH/COMPUTER | Total | % | |
| 21-MATHEMATICS | \$ 1,469,258 | 6% | |
| 22-COMPUTER SCI. | \$ 17,513,493 | 68% | |
| 29-MATH/COMP NEC* | \$ 8,591,252 | 26% | |
| Grand Total | \$ 25,574,003 | | 3% |
| LIFE SCIENCES | Total | % | |
| 51-BIOLOGICAL SCI | \$ 26,238,943 | 40% | |
| 54-ENV. BIOLOGY | \$ 1,393,849 | 2% | |
| 55-AGRIC. SCIENCES | \$ 823,491 | 1% | |
| 56-MEDICAL SCIENCES | \$ 6,929,706 | 11% | |
| 59-LIFE SCIENCES, NEC** | \$ 30,505,324 | 46% | |
| Grand Total | \$ 65,891,313 | | 7% |
| SOCIAL SCIENCES | Total | % | |
| 71-ANTHROPOLOGY | \$ 20,000 | 1% | |
| 76-SOCIOLOGY | \$ 29,700 | 1% | |
| 79-SOCIAL SCIENCE, NEC* | \$ 3,197,280 | 98% | |
| Grand Total | \$ 3,246,980 | | 0% |
| ENVIRONMENTAL SCIENCES | Total | % | |
| 31-ATMOSPHERE SCIENCES | \$ 61,279,826 | 28% | |
| 32-GEOLOGICAL SCIENCES | \$ 21,520,070 | 10% | |
| 33-OCEANOGRAPHY | \$ 9,443,390 | 4% | |
| 39-ENVIRONMENTAL SCI* | \$ 128,831,050 | 58% | |
| Grand Total | \$ 221,074,356 | | 24% |
| PSYCHOLOGY | Total | % | |
| 61-BIOLOGICAL | \$ 48,660 | 1% | |
| 62-SOCIAL ASPECTS | \$ 1,123,720 | 17% | |
| 69-PSYCHOLOGY, NEC* | \$ 5,306,040 | 82% | |
| Grand Total | \$ 6,478,430 | | 1% |
| OTHER DISCIPLINES** | Total | % | |
| 99-ALL-DISCIPLINE(S) | \$ 111,573,100 | 100% | |
| Grand Total | \$ 111,573,100 | | 12% |
| GRAND TOTAL OF ALL SCIENCE & ENGINEERING | Total | | 100% |
| | \$ 909,823,970 | | |

*NOT ELSEWHERE CLASSIFIED

**CANNOT BE CLASSIFIED WITHIN THE FIELDS

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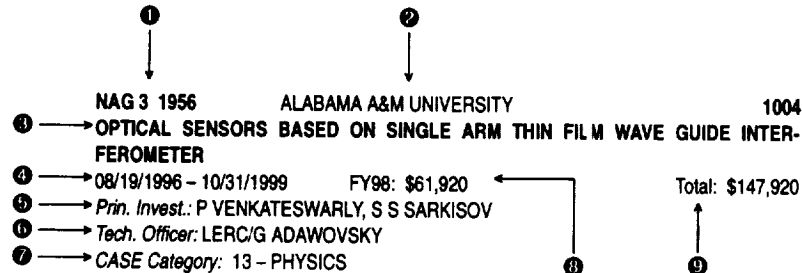
This report includes data on projects active during Fiscal Year 1998.

| | | | |
|----------------------------|-----|----------------------------------------------------------------|-----|
| Alabama | 1 | Nebraska | 354 |
| Alaska | 19 | Nevada | 356 |
| Arizona | 22 | New Hampshire | 357 |
| Arkansas | 43 | New Jersey | 367 |
| California | 44 | New Mexico | 375 |
| Colorado | 129 | New York | 381 |
| Connecticut | 156 | North Carolina | 412 |
| Delaware | 160 | North Dakota | 423 |
| District of Columbia | 162 | Ohio | 424 |
| Florida | 170 | Oklahoma | 447 |
| Georgia | 190 | Oregon | 449 |
| Hawaii | 202 | Pennsylvania | 454 |
| Idaho | 211 | Rhode Island | 473 |
| Illinois | 211 | South Carolina | 478 |
| Indiana | 227 | South Dakota | 482 |
| Iowa | 235 | Tennessee | 483 |
| Kansas | 241 | Texas | 490 |
| Kentucky | 245 | Utah | 521 |
| Louisiana | 247 | Vermont | 526 |
| Maine | 253 | Virginia | 527 |
| Maryland | 253 | Washington | 552 |
| Massachusetts | 285 | West Virginia | 566 |
| Michigan | 321 | Wisconsin | 567 |
| Minnesota | 336 | Wyoming | 578 |
| Mississippi | 342 | Guam | 580 |
| Missouri | 345 | Commonwealth of Puerto Rico | 580 |
| Montana | 352 | Foreign Countries | 582 |
| | | Appendix/Cross Index by Field of Science and Engineering | 585 |

USER'S GUIDE:

The University Program Report provides current information and related statistics for each grant/contract/cooperative agreement active during the report period. The following guidance is provided as an aid to the reader in readily locating material of interest and in optimizing the use of this document.

I. Typical Citation



KEY

1. Agreement number*
2. Institution name
3. Brief work description
4. Approximate period of performance
5. Principal investigator(s) at the educational institution
6. NASA Technical Officer(s) and organizational location
7. CASE Field of Science and Engineering code and name
8. Amount (if any) actually provided during the indicated fiscal year
9. Total amount actually provided during the indicated period of performance

* Uniquely identifies project. Prefixes denote type of instrument as follows:

Grants: NAG, NAGW, NGF, NGT, NGL, NGR, NSG

Cooperative Agreements: NCC, NCCW

Contracts: DEN, NAS, NASR, NASW, NSR

Space Act Agreements: NCA

II. NASA Installations

NASA installations are included in the citation as abbreviations (item 7). The following listing of installations will be useful to those desiring further information on specific projects.

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Mr. Gary Gans Code FE NASA Headquarters Office of Human Resources and Education Washington, DC 20546-0001 Phone: (202) 358-1110 | HQ | Mr. Gregg Buckingham Mail Stop HM-CIC John F. Kennedy Space Center Kennedy Space Center, FL 32899 Phone: (407) 867-7952 Fax: (407) 867-2454 E-mail: Gregg.Buckingham-1@kmail.ksc.nasa.gov | KSC |
| Ms. Marilyn Jackson University Affairs Officer MC-241-3 Ames Research Center Moffett Field, CA 94035 Phone: (650) 604-6937 Fax: (650) 604-3622 E-mail: mjackson@mail.arc.nasa.gov | ARC | Mr. Roger A. Hathaway Mail Stop 400 Langley Research Center Hampton, VA 23681-0001 Phone: (757) 864-4000 Fax: (757) 864-8835 E-mail: r.a.hathaway@larc.nasa.gov | LARC |
| Dr. Kajal K. Gupta Dryden Flight Research Center P.O. Box 273 Edwards, CA 93523 Phone: (805) 258-3710 Fax: (805) 258-3744 E-mail: kajal.gupta@dfrc.nasa.gov | DFRC | Dr. Francis J. Montegani Mail Stop 49-5 Lewis Research Center 21000 Brookpark Road Cleveland, OH 44135 Phone: (216) 433-2956 Fax: (216) 433-3687 E-mail: fjm@lerc.nasa.gov | LERC |
| Dr. Gerald Soffen Ms. Mablelene Burrell Mail Code 160 Goddard Space Flight Center Greenbelt, MD 20771 Phone: (301) 286-9690/1122 Fax: (301) 286-1610 E-mail: gsoffen@pop100.gsfc.nasa.gov mburrell@pop100.gsfc.nasa.gov | GSFC | Dr. James F. Dowdy, Jr. Ms. Tammy B. Rowan Mail Code CL01 George C. Marshall Space Flight Center MSFC, AL 35812 Phone: (205) 544-7604/8706 Fax: (205) 544-8899 E-mail: jim.dowdy@msfc.nasa.gov tammy.rowan@msfc.nasa.gov | MSFC |
| Dr. Donn Sickorez Mail Code AP-2 Lyndon B. Johnson Space Center Houston, TX 77058 Phone: (281) 483-4724 Fax: (281) 483-4876 E-mail: donn.g.sickorez1@jsc.nasa.gov | JSC | Dr. Armond Joyce University Programs Officer John C. Stennis Space Center Stennis Space Center, MS 39529 Phone: (228) 688-3830 Fax: (228) 688-7499 E-mail: Armond.T.Joyce@ssc.nasa.gov | SSC |

A full listing of the suffix letters and information on NASA's organizational structure may be found in the NASA Headquarters Telephone Directory. The directory is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

III. CASE Fields of Science and Engineering

The National Science Foundation (NSF) operates a government-wide system (CASE) for collecting and analyzing data on support to colleges and universities. Participating agencies report annually to NSF, which in turn issues Support to Universities, Colleges and Selected Nonprofit Institutions. The CASE fields, used in the extensive tabulations contained in that document, form the only consistent classification systems for government-sponsored research. The fields are listed in full in the Appendix.

IV. Cross-Index

The cross-indexed Appendix provides rapid access to all projects in a particular area of endeavor, as defined by the CASE fields. This listing is also easily used to determine the institutions and principal investigators conducting NASA projects in a field.

ALABAMA

NAG 2 1130 ALABAMA A&M UNIVERSITY **1000**
IRON-ION INDUCED LOW DOSE MUTAGENESIS
 06/11/1997 – 10/31/1998 FY98: \$40,000 Total: \$159,961
Prin. Invest.: P G KALE
Tech. Officer: ARC/A J HATCH, ARC/P X CALLAHAN
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 2 1160 ALABAMA A&M UNIVERSITY **1001**
**ADAPTATION OF LEAF SPECTROREFLECTOMETRY & NEURAL NETWORK
 IMAGE ANALYSIS APPROACHES FOR DETECTION & DISCRIMINATION OF**
 09/07/1997 – 02/28/1999 FY98: \$0 Total: \$129,976
Prin. Invest.: C A BEYL, G C SHARMA
Tech. Officer: ARC/M H KLISS, ARC/D L BUBENHEIM
CASE Category: 55 – AGRICULTURE

NAG 2 1175 ALABAMA A&M UNIVERSITY **1002**
**NEURAL NETWORK ANALYSIS OF LEAF MULTISPECTRAL REFLECTANCE
 FOR DETECTION & DISCRIMINATION OF**
 02/03/1998 – 03/31/1999 FY98: \$99,812 Total: \$99,812
Prin. Invest.: C A BEYL
Tech. Officer: ARC/M H KLISS, ARC/G S LEE
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NAG 3 1408 ALABAMA A&M UNIVERSITY **1003**
INTEGRATED OPTICS IN THIN FILMS OF POLYMERS & ORGANIC MATERIALS
 01/13/1993 – 03/31/1997 FY98: -\$948 Total: \$737,652
Prin. Invest.: P VENKETESWARLU, H ABDELDAYEM
Tech. Officer: LERC/G ADAMOVSKY, LERC/G M BEHEIM
CASE Category: 13 – PHYSICS

NAG 3 1956 ALABAMA A&M UNIVERSITY **1004**
**OPTICAL SENSORS BASED ON SINGLE ARM THIN FILM WAVE GUIDE
 INTERFEROMETER**
 08/19/1996 – 10/31/1999 FY98: \$61,920 Total: \$147,920
Prin. Invest.: P VENKATESWARLU, S S SARKISOV
Tech. Officer: LERC/G ADAWOVSKY
CASE Category: 13 – PHYSICS

NAG 3 2020 ALABAMA A&M UNIVERSITY **1005**
**DEVELOPMENT OF STABLE ELEVATED TEMPERATURE SILICON CARBIDE
 SENSORS**
 03/06/1997 – 11/05/1997 FY98: \$0 Total: \$125,000
Prin. Invest.: J O ADEYEYE
Tech. Officer: LERC/J R SCOTT
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAG 3 2123 ALABAMA A&M UNIVERSITY **1006**
**DEVELOPMENT OF A STABLE ELEVATED TEMPERATURE SILICON CARBIDE
 SENSOR**
 02/19/1998 – 01/05/1999 FY98: \$144,000 Total: \$144,000
Prin. Invest.: D ILA
Tech. Officer: LERC/J LARKIN
CASE Category: 45 – ELECTRICAL ENGR

NAG 8 125 ALABAMA A&M UNIVERSITY **1007**
**GROWTH CHARACTERISTICS OF ORGANIC CRYSTALS FOR NON-LINEAR
 OPTICAL APPLICATIONS**
 04/24/1989 – 03/21/1997 FY98: -\$379 Total: \$434,903
Prin. Invest.: M D AGGARWAL
Tech. Officer: MSFC/J L RANDALL, MSFC/R J WALKER
CASE Category: 13 – PHYSICS

NAG 8 1125 ALABAMA A&M UNIVERSITY **1008**
**DEVELOPMENT OF UPCONVERSION MATERIALS, LASERS, AND OPTICAL
 SENSORS**
 02/27/1995 – 12/31/1998 FY98: \$0 Total: \$393,575
Prin. Invest.: B R REDDY
Tech. Officer: MSFC/W J LOVE
CASE Category: 13 – PHYSICS

NAG 8 1129 ALABAMA A&M UNIVERSITY **1009**
CRYSTALS STUDY
 03/10/1995 – 12/31/1996 FY98: -\$7,312 Total: \$77,977
Prin. Invest.: R B LAL
Tech. Officer: MSFC/B PENN, MSFC/W LOVE
CASE Category: 13 – PHYSICS

NAG 8 1172 ALABAMA A&M UNIVERSITY **1010**
**FOR RESEARCH "ELLIPSOMETRIC MEASUREMENT OF ORGANIC AND
 NON-LINEAR OPTICAL MATERIALS**
 09/30/1996 – 09/29/1998 FY98: \$0 Total: \$83,726
Prin. Invest.: K J CHANG
Tech. Officer: MSFC/A C BEAM
CASE Category: 12 – CHEMISTRY

NAG 8 1192 ALABAMA A&M UNIVERSITY **1011**
**A COLLABORATIVE PROGRAM FOR ENHANCING STUDENTS WITH DIS-
 ABILITIES**
 09/13/1995 – 11/14/1998 FY98: \$0 Total: \$210,938
Prin. Invest.: D CRAWFORD
Tech. Officer: MSFC/S MILLER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1335 ALABAMA A&M UNIVERSITY **1012**
**R/S "AN INNOVATIVE APPROACH FOR VORTEX TUBE FLOW ANALYSIS
 AND APPLICATION IN FILM COOLING"**
 03/26/1997 – 05/27/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: K HE
Tech. Officer: MSFC/A CHOW
CASE Category: 13 – PHYSICS

NAG 8 1365 ALABAMA A&M UNIVERSITY **1013**
**R/S "AN UNCONVENTIONAL THREE-DIMENSIONAL COMPUTATION OF
 TRANSITIONAL AERODYNAMICS FOR RLV"**
 05/28/1997 – 05/31/1999 FY98: \$0 Total: \$178,374
Prin. Invest.: G S KUAB
Tech. Officer: MSFC/L FOSTER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 8 1366 ALABAMA A&M UNIVERSITY **1014**
**R/S "CURRICULUM ADJUSTMENTS IN MATHEMATICS FOR SCIENCE &
 ENGINEERING PROGRAMS"**
 05/28/1997 – 05/31/1999 FY98: \$0 Total: \$189,432
Prin. Invest.: E C TEMPLE
Tech. Officer: MSFC/A HENDERSON
CASE Category: 21 – MATHEMATICS

NAG 8 1390 ALABAMA A&M UNIVERSITY 1015
R/S "BULK AND THIN FILM ORGANIC NONLINEAR OPTICAL CRYSTALS FOR DEVICES AND MICROGRAVITY PROCESSING"
 07/23/1997 - 07/22/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: M D AGGARWAL
Tech. Officer: MSFC/D FRAZIER, MSFC/W J LOVE
CASE Category: 13 - PHYSICS

NAG 8 1400 ALABAMA A&M UNIVERSITY 1016
EFFECT OF DOPANTS ON THE GROWTH & PROPERTIES OF MIXED ORGANIC CRYSTALS FOR NON-LINEAR OPTICAL APPS
 09/19/1997 - 12/31/1998 FY98: \$0 Total: \$99,822
Prin. Invest.: B PENN
Tech. Officer: MSFC/B PENN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1541 ALABAMA A&M UNIVERSITY 1017
CYTOGENETIC INVESTIGATIONS INTO RADIOSENSITIVITY
 07/17/1998 - 07/16/1999 FY98: \$98,858 Total: \$98,858
Prin. Invest.: D KALE
Tech. Officer: MSFC/R C RICHMOND
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 758 ALABAMA A&M UNIVERSITY 1018
ENUMERATION, DETECTION OF HETEROTROPHIC BACTERIA IN POTABLE WTERS FOR THE SPACE STATION
 09/16/1994 - 12/31/1997 FY98: \$0 Total: \$164,000
Prin. Invest.: M G TADROS
Tech. Officer: JSC/R L SAUER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG10 245 ALABAMA A&M UNIVERSITY 1019
MISSION PLANNING AND RISK MANAGEMENT
 04/06/1998 - 04/06/1999 FY98: \$98,240 Total: \$98,240
Prin. Invest.: M ELSHAMY
Tech. Officer: KSC/R TILLEY
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 4 14 ALABAMA A&M UNIVERSITY 1020
SIGNAL PROCESSING ALGORITHM SENSOR
 01/20/1995 - 09/30/1998 FY98: \$0 Total: \$107,908
Prin. Invest.: S VON LAVEN
Tech. Officer: DFRC/R K BOGUE
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 8 27 ALABAMA A&M UNIVERSITY 1021
CHARACTERIZATION OF ORGANIC SPHERICAL POLYMER-DYE LASER MATERIALS AND THEIR LASER ACTION
 09/07/1993 - 10/31/1996 FY98: -\$1,492 Total: \$52,915
Prin. Invest.: P VENKATESWARLU
Tech. Officer: MSFC/G H FICHTL, MSFC/R J WALKER
CASE Category: 13 - PHYSICS

NCC 8 140 ALABAMA A&M UNIVERSITY 1022
R/S "CENTER FOR HYDROLOGY, SOIL CLIMATOLOGY AND REMOTE SENSING (HSCARS)"
 07/21/1997 - 06/30/1999 FY98: \$420,000 Total: \$1,945,000
Prin. Invest.: T L COLEMAN
Tech. Officer: MSFC/R ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCCW 8 ALABAMA A&M UNIVERSITY 1023
CENTER FOR HYDROLOGY, SOIL CLIMATOLOGY AND REMOTE SENSING
 08/09/1995 - 06/30/2000 FY98: \$0 Total: \$2,684,100
Prin. Invest.: T L COLEMAN
Tech. Officer: HQ/B L WHITE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 8 528-1 ALABAMA A&M UNIVERSITY 1024
RESEARCH PROGRAM
 09/25/1995 - 05/31/1999 FY98: \$16,500 Total: \$82,500
Prin. Invest.: P B LAI
Tech. Officer: MSFC/D FRAZIER
CASE Category: 13 - PHYSICS

NGT 8 528-8 ALABAMA A&M UNIVERSITY 1025
GRAD STUDENT RESEACHER'S PROGRAM
 07/24/1996 - 06/30/1999 FY98: \$18,334 Total: \$62,334
Prin. Invest.: D P PARKER
Tech. Officer: MSFC/J BILBRO
CASE Category: 21 - MATHEMATICS

NAG 3 1154 AUBURN UNIVERSITY 1026
HIGH PERFORMANCE ELECTROCHEMICAL SYSTEMS UTILIZING COMPOSITE ELECTRODE STRUCTURES
 03/22/1990 - 07/31/1998 FY98: \$0 Total: \$612,250
Prin. Invest.: B J TATARCHUK
Tech. Officer: LERC/D L BRITTON, LERC/M A REID
CASE Category: 43 - CHEMICAL ENGR

NAG 3 181-2 AUBURN UNIVERSITY 1027
INVESTIGATION OF THERMAL STRESS CONVECTION IN MON ISOTHERMAL GASES UNDER MICROGRAVITY CONDITIONS
 05/21/1996 - 05/31/1999 FY98: \$0 Total: \$100,000
Prin. Inves.: D W MACKOWSKI
Tech. Officer: LERC/B S SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 191-0 AUBURN UNIVERSITY 1028
MINIATURE ELECTRIC PROPULSION UNITS FOR SMALLEST APPLICATIONS
 07/29/1996 - 12/31/1998 FY98: \$74,998 Total: \$149,996
Prin. Inves.: M F ROSE, S A MERRYMAN
Tech. Officer: LERC/J A HAMLEY, LERC/L R PINERO
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 21-0 AUBURN UNIVERSITY 1029
TIAL JOINING SCIENCE AND TECHNOLOGY FOR ADVANCED AEROPROPULSION SYSTEM
 02/11/1998 - 01/13/2001 FY98: \$56,421 Total: \$56,421
Prin. Inves.: W F GALE, J W FERGUS
Tech. Officer: LERC/R D NOEBE, LERC/M V NATHAL
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 21-12 AUBURN UNIVERSITY 1030
HIGH PERFORMANCE NICKEL HYDROXIDE ELECTRODES UTILIZING COMPOSITE NICKEL FIBER ELECTRODE MICRO-STRUC
 04/02/1996 - 11/30/1998 FY98: \$77,500 Total: \$77,500
Prin. Invest.: B K TATARCHUK
Tech. Officer: LERC/D BRITTON
CASE Category: 43 - CHEMICAL ENGR

NAG 8 1295 AUBURN UNIVERSITY 1031
MODAL TESTING AND ANALYSIS OF SPACE STATION ELEMENT SIMULATOR
 05/09/1996 – 11/16/1997 FY98: -\$980 Total: \$41,513
Prin. Invest.: M A CUTCHINS
Tech. Officer: MSFC/F BUGG, MSFC/P S BOOKOUT
CASE Category: 41 – AERONAUTICAL ENGR

NAG 8 1562 AUBURN UNIVERSITY 1032
FURTHER VERIFICATION OF THE RESIDUAL APPROACH
 09/10/1998 – 09/15/1999 FY98: \$7,000 Total: \$7,000
Prin. Invest.: M A CRUTCHINS
Tech. Officer: MSFC/F M BUGG, MSFC/P S BOOKOUT
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG 8 1563 AUBURN UNIVERSITY 1033
TERRESTRIAL ENERGY STORAGE FOR SPS SYSTEMS
 09/15/1998 – 12/31/1998 FY98: \$24,936 Total: \$24,936
Prin. Invest.: H W BRANDHORST, JR.
Tech. Officer: MSFC/J HOWELL
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 1192 AUBURN UNIVERSITY 1034
CENTER FOR COMMERCIAL DEVELOPMENT OF SPACE
 11/16/1987 – 10/31/1997 FY98: \$0 Total: \$20,402,513
Prin. Invest.: R ASKEW
Tech. Officer: HQ/W A ORAN, HQ/R P WHITTEN
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG10 241 AUBURN UNIVERSITY 1035
DESIGN OF KSC USABILITY LABORATORY
 01/29/1998 – 07/01/1998 FY98: \$36,089 Total: \$36,089
Prin. Invest.: L MOORE
Tech. Officer: KSC/D MILLER
CASE Category: 49 – ENGINEERING, OTHER

NAS 8 98249 AUBURN UNIVERSITY 1036
DEVELOPMENT AND PACKAGING OF SUPERCAPACITORS FOR LAUNCH VEHICLE APPLICATIONS
 09/10/1998 – 03/09/1999 FY98: \$120,353 Total: \$120,353
Prin. Invest.: S A MERRYMAN, Z CHEN
Tech. Officer: MSFC/D K HALL, MSFC/T M EDGE
CASE Category: 45 – ELECTRICAL ENGR

NCC 3 511 AUBURN UNIVERSITY 1037
CENTER FOR THE COMMERCIAL DEVELOPMENT OF SPACE: SPACE POWER & ADVANCED ELECTRONICS
 11/01/1996 – 10/31/2001 FY98: \$1,025,000 Total: \$2,125,000
Prin. Invest.: D W BRANDHORST, JR., M F ROSE
Tech. Officer: LERC/J E DUDENHOEFER, LERC/R J SOVIE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 4 103 AUBURN UNIVERSITY 1038
ROTATIONALLY ADAPTIVE FLUTTER TEST SURFACE NEW AWARD
 02/01/1996 – 03/27/1999 FY98: \$0 Total: \$40,000
Prin. Invest.: D M BARRETT
Tech. Officer: DFRG/D F VORACEK
CASE Category: 41 – AERONAUTICAL ENGR

NCC 5 333 AUBURN UNIVERSITY 1039
SOIL ORGANIC MATTER FLUXES IN AMAZONIAN FORESTS: NATURAL VS INTENSIVELY MANAGED SYSTEMS
 06/17/1998 – 01/31/1999 FY98: \$82,608 Total: \$82,608
Prin. Invest.: K MCNABB
Tech. Officer: GSFC/D DEERING
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 8 69 AUBURN UNIVERSITY 1040
AUBURN INDUSTRIAL EXTENSION SERVICE
 01/26/1995 – 07/31/1998 FY98: \$0 Total: \$504,955
Prin. Invest.: H BURDG
Tech. Officer: MSFC/K FERNANDEZ, MSFC/B HAYES
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 8 128 AUBURN UNIVERSITY 1041
FOR RESEARCH: "AUBURN COMMERCIAL SPACE CENTER FOR THE SOLIDIFICATION DESIGN/CASTNET PROGRAM"
 01/28/1997 – 10/31/1998 FY98: \$1,000,000 Total: \$1,470,000
Prin. Invest.: J R WATKINS
Tech. Officer: MSFC/J R WATKINS
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 8 151 AUBURN UNIVERSITY 1042
GLOBAL CHANGE R/S EDUCATION & OUTREACH RELATED TO THE EARTH'S SURFACE RESOURCES AND HYDROLOGIC CYCLE
 06/30/1998 – 03/31/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: U HATCH
Tech. Officer: MSFC/J R ARNOLD
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 51246 AUBURN UNIVERSITY 1043
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/14/1994 – 12/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: S M RAO
Tech. Officer: LARC/L EVANS
CASE Category: 45 – ELECTRICAL ENGR

NGT 70384 AUBURN UNIVERSITY 1044
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 08/25/1994 – 06/30/1997 FY98: -\$17,482 Total: \$48,518
Prin. Invest.: S C SINHA
Tech. Officer: HQ/D K RUSSELL
CASE Category: 46 – MECHANICAL ENGR

NGT 1 52120 AUBURN UNIVERSITY 1045
GRADUATE STUDENT RESEARCHER PROGRAM (GSRP) URM&D FOCUS
 06/29/1995 – 06/30/1998 FY98: \$0 Total: \$55,001
Prin. Invest.: G T FLOWERS, M A LAWEN
Tech. Officer: LARC/R G KVATERNIK
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52205 AUBURN UNIVERSITY 1046
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/04/1998 – 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M L WALLER, T H SHUMPERT, S M RAO
Tech. Officer: LARC/F B BECK, LARC/M C BAILEY
CASE Category: 45 – ELECTRICAL ENGR

NGT 8 52826 AUBURN UNIVERSITY **1047**
GRAD STUDENT RESEARCHERS PROGRAM FOR VALETA C. CHANCEY
 09/20/1996 – 09/16/1999 FY98: \$0 Total: \$44,000
Prin. Invest.: V C CHANEY
Tech. Officer: MSFC/S RYAN
CASE Category: 46 – MECHANICAL ENGR

NGT 8 52851 AUBURN UNIVERSITY **1048**
ADVANCED METHOD FOR VIBRATION ANALYSIS OF HIGH SPEED ROTOR SYSTEMS
 07/21/1998 – 08/13/2000 FY98: \$22,000 Total: \$22,000
Prin. Invest.: G T FLOWERS
Tech. Officer: MSFC/J F DOWDY
CASE Category: 46 – MECHANICAL ENGR

NGT 8 52870 AUBURN UNIVERSITY **1049**
OPTIMAL APPLICATION OF COMBUSTION TEST DATA TO FLAMABILITY ASSESSMENT IN GASEOUS OXYGEN
 07/27/1998 – 08/13/2000 FY98: \$22,000 Total: \$22,000
Prin. Invest.: P D JONES
Tech. Officer: MSFC/J F DOWDY
CASE Category: 46 – MECHANICAL ENGR

NAG 8 1280 BIRMINGHAM SOUTHERN COLLEGE **1050**
JOVE RESEARCH
 01/21/1997 – 08/31/1999 FY98: \$4,000 Total: \$25,000
Prin. Invest.: K B BACHMANN
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 13 – PHYSICS

NCC 8 118 JOHN C. CALHOUN STATE COMMUNITY COLLEGE **1051**
RESEARCH "WORK EXPERIENCE MENTORING PROGRAM"
 09/30/1996 – 09/30/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: R CARPENTER
Tech. Officer: MSFC/S PAYNE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1238 MILES COLLEGE **1052**
JOINT VENTURE IN SPACE SERVICE (JOVE)
 10/31/1996 – 05/31/1999 FY98: \$17,000 Total: \$55,000
Prin. Invest.: D B BHARWANI
Tech. Officer: MSFC/E COTHRAN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1300 OAKWOOD COLLEGE **1053**
R/S THE DEVELOPMENT, ASSESSMENT, VALIDATION & ENHANCEMENT (DAVE) OF VIRTUAL REALITY FOR HUMAN ANAT
 07/09/1996 – 05/31/1998 FY98: \$0 Total: \$78,577
Prin. Invest.: K BENN-MARSHALL
Tech. Officer: MSFC/J HALE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 4588 STILLMAN COLLEGE **1054**
PRECOLLEGE AWARDS FOR EXCELLENCE IN MATHEMATICS, S AND TECHNOLOGY
 07/10/1997 – 04/30/1998 FY98: \$0 Total: \$98,766
Prin. Invest.: J CHRISTIAN
Tech. Officer: GSFC/M STOUTSENBERGHER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 4436 STILLMAN COLLEGE **1055**
STILLMAN COLLEGE'S PRECOLLEGE AWARDS FOR EXCELLENCE IN MATH, SCIENCE, ENGINEER, AND TECH.
 05/04/1995 – 04/30/1998 FY98: \$0 Total: \$172,816
Prin. Invest.: J WASHINGTON
Tech. Officer: HQ/B L WHITE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 4578 TRENHOLM STATE TECHNICAL COLLEGE **1056**
HIGH SCHOOL STUDENT SCIENCE ENRICHMENT PROGRAM
 05/13/1997 – 04/30/1999 FY98: \$190,722 Total: \$375,827
Prin. Invest.: E ROSS
Tech. Officer: GSFC/L RANDOLPH
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 4089 TRENHOLM STATE TECHNICAL COLLEGE **1057**
SCIENCE ENRICHMENT PROGRAM
 07/28/1994 – 04/30/1997 FY98: \$0 Total: \$531,973
Prin. Invest.: E C ROSS
Tech. Officer: HQ/C GRAVES
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1214 TROY STATE UNIVERSITY **1058**
JOVE
 09/22/1996 – 08/31/1999 FY98: \$0 Total: \$87,000
Prin. Invest.: D J BATEMAN, D
Tech. Officer: MSFC/D SIX
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 1 1549 TUSKEGEE UNIVERSITY **1059**
INVESTIGATION OF TECHNIQUES FOR SPECTRAL ANALYSIS AND ESTIMATION OF TURBULENCE SCALES FROM RANDOMLY
 11/04/1993 – 11/03/1996 FY98: \$0 Total: \$145,000
Prin. Invest.: D SREE
Tech. Officer: LARC/S O KIELGARD
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1855 TUSKEGEE UNIVERSITY **1060**
IDENTIFICATION OF SURFACE AND NEAR SURFACE DEFECTS AND DAMAGE EVALUATION BY LASER SPECKLE
 09/10/1996 – 09/09/1999 FY98: \$24,700 Total: \$218,715
Prin. Invest.: M A SEIF
Tech. Officer: LARC/R ROGOSKI
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 2 4036 TUSKEGEE UNIVERSITY **1061**
A LOW COST SIMULATION SYSTEM TO DEMONSTRATE PILOT INDUCED OSCILLATION PHENOMENA
 05/12/1996 – 01/30/1997 FY98: \$1,084 Total: \$82,583
Prin. Invest.: S F ALI
Tech. Officer: DFRC/L SCHILLING, DFRC/K NORLIN
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 1338 TUSKEGEE UNIVERSITY **1062**
SPUTTERING EROSION ON THE ION THRUSTER
 12/04/1993 – 01/31/1997 FY98: \$0 Total: \$358,819
Prin. Invest.: P K RAY
Tech. Officer: LERC/V K RAWLIN
CASE Category: 13 – PHYSICS

NASA'S UNIVERSITY PROGRAM

ALABAMA

NAG 3 1582 TUSKEGEE UNIVERSITY **1063**
SPUTTERING EROSION OF INSULATOR WALLS IN THE STAT IONARY PLASMA THURSTER
 03/22/1994 – 09/23/1997 FY98: \$0 Total: \$292,793
Prin. Invest.: P K RAY
Tech. Officer: LERC/E J PENCIL
CASE Category: 45 – ELECTRICAL ENGR

NAG 3 1904 TUSKEGEE UNIVERSITY **1064**
AN EXPERIMENTAL INVEST OF EFF OF SPACE PLASMA ON SP ACECRAFT & SPACE POWER SYS MATS
 07/01/1996 – 09/30/1997 FY98: \$0 Total: \$55,896
Prin. Invest.: C V DORESWAMY
Tech. Officer: LERC/D C FERGUSON
CASE Category: 45 – ELECTRICAL ENGR

NAG 3 1977 TUSKEGEE UNIVERSITY **1065**
CHARACTERIZATION OF FLOW BEHIND THE FAN OF A TURBO FAN ENGINE
 10/30/1996 – 01/28/1999 FY98: \$50,187 Total: \$132,811
Prin. Invest.: D SREE
Tech. Officer: LERC/G G PODBOY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2037 TUSKEGEE UNIVERSITY **1066**
SPUTTERING EROSION IN THE ION THRUSTER
 04/22/1997 – 11/30/1998 FY98: \$35,000 Total: \$64,984
Prin. Invest.: P K RAY
Tech. Officer: LERC/M MANTENEIKS
CASE Category: 13 – PHYSICS

NAG 3 2127 TUSKEGEE UNIVERSITY **1067**
STUDY OF ELECTRICAL CONTACTS AND DEVICES IN ADVANC ED SEMI-CONDUCTORS
 02/13/1998 – 01/19/2001 FY98: \$99,933 Total: \$99,933
Prin. Invest.: K K DAS
Tech. Officer: LERC/S A ALTEROVITZ
CASE Category: 45 – ELECTRICAL ENGR

NAG 4 133 TUSKEGEE UNIVERSITY **1068**
TEAM TRAINING AND RETENTION OF SKILLS ACQUIRED IN ABOVE REAL TIME TRAINING ON A FLIGHT SIMULATOR
 06/25/1997 – 01/30/1999 FY98: \$58,169 Total: \$95,415
Prin. Invest.: S F ALI
Tech. Officer: DFRC/K NORLIN
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG 8 296 TUSKEGEE UNIVERSITY **1069**
MAIN ENGINE STUDY
 05/20/1993 – 03/31/1998 FY98: \$0 Total: \$245,381
Prin. Invest.: E A IBRAHIM
Tech. Officer: MSFC/A BEAM
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAG 8 1141 TUSKEGEE UNIVERSITY **1070**
DEVELOPMENT OF COMPUTER MODEL OF THE TVC ELECTRO- MECHANICAL ACTUATOR SYSTEM
 05/01/1995 – 08/11/1998 FY98: \$0 Total: \$188,906
Prin. Invest.: C V DORESWAMY
Tech. Officer: MSFC/D PEARSON
CASE Category: 22 – COMPUTER SCIENCE

NAG 8 1171 TUSKEGEE UNIVERSITY **1071**
MANUFACTURING & FINITE ELEMENT MODELING OF COMPOSITE ISOGRIID STRUCTURES
 09/20/1996 – 09/19/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: H MAHFUZ
Tech. Officer: MSFC/W MCHAHON
CASE Category: 41 – AERONAUTICAL ENGR

NAG 8 1246 TUSKEGEE UNIVERSITY **1072**
R/S ATOMIZATION IN IMPINGING-JET INJECTORS OF LIQUID-PROPELLANT ROCKET ENGINES
 10/31/1996 – 10/31/1999 FY98: \$83,986 Total: \$164,206
Prin. Invest.: D A IBRAHIM
Tech. Officer: MSFC/K GROSS
CASE Category: 46 – MECHANICAL ENGR

NAG 9 870 TUSKEGEE UNIVERSITY **1073**
SUMMER STUDENT RESEARCH PROGRAM
 05/07/1996 – 04/30/1997 FY98: -\$6 Total: \$49,994
Prin. Invest.: P A LORETAN
Tech. Officer: JSC/J D ATKINSON
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG10 125 TUSKEGEE UNIVERSITY **1074**
RESEARCH AND DEVELOPMENT OF MATERIALS PROTECTIVE CLOTHING
 07/12/1993 – 09/01/1998 FY98: \$0 Total: \$199,999
Prin. Invest.: N VAHDAT
Tech. Officer: KSC/K THOMPSON
CASE Category: 12 – CHEMISTRY

NAG10 166 TUSKEGEE UNIVERSITY **1075**
DEVEL OF SMALL PORTABLE MASS SPECTROMETER
 06/14/1995 – 09/30/1998 FY98: \$0 Total: \$283,566
Prin. Invest.: N VAHDAT
Tech. Officer: KSC/J D COLLINS
CASE Category: 41 – AERONAUTICAL ENGR

NAG10 167 TUSKEGEE UNIVERSITY **1076**
RESEARCH & DEVELOPMENT OF MATERIALS & COMPONENTS FOR PROTECTIVE CLOTHING
 06/19/1995 – 07/20/1998 FY98: \$0 Total: \$109,491
Prin. Invest.: N VAHDAT
Tech. Officer: KSC/P FAUGHNAN
CASE Category: 43 – CHEMICAL ENGR

NAG10 168 TUSKEGEE UNIVERSITY **1077**
FRACTURE MORPHOLOGY OF SELECTIVE POLYMER SYSTEMS UNDER MONOTONIC & FATIGUE LOADING
 06/05/1995 – 03/08/1999 FY98: \$0 Total: \$285,284
Prin. Invest.: H A AGLAN
Tech. Officer: KSC/P FAUGHNAN
CASE Category: 41 – AERONAUTICAL ENGR

NAG10 176 TUSKEGEE UNIVERSITY **1078**
BIOTRANSFORMATION MODEL MIXTURE HYDROGENE FUELS
 07/19/1995 – 07/31/1998 FY98: \$36,135 Total: \$256,705
Prin. Invest.: K HAILE
Tech. Officer: KSC/B DELIWALA
CASE Category: 12 – CHEMISTRY

NAG10 209 TUSKEGEE UNIVERSITY **1079**
SWEETPOTATO STEM CUTTING DATABASE IN PREPARATION FOR FLIGHT
 09/01/1997 - 08/31/1999 FY98: \$50,000 Total: \$207,346
Prin. Invest.: D MARTLEY
Tech. Officer: KSC/R WHEELER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG13 33 TUSKEGEE UNIVERSITY **1080**
A STUDY OF THE FLUID MECHANICS OF REACTING FLOWS IN SELECTED AEROSPACE PROPULSION DEVICES
 02/28/1995 - 02/27/1998 FY98: \$0 Total: \$177,328
Prin. Invest.: E SHEPPARD
Tech. Officer: SSC/G PITALO
CASE Category: 41 - AERONAUTICAL ENGR

NAG13 50 TUSKEGEE UNIVERSITY **1081**
NASA UNIVERSITY PARTNERSHIP AWARD WITH MINORITY INSTITUTIONS PROGRAM
 06/19/1997 - 06/18/1999 FY98: \$115,000 Total: \$306,120
Prin. Invest.: E SHEPPARD
Tech. Officer: SSC/B ST. CYR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 3 591 TUSKEGEE UNIVERSITY **1082**
HIGH TEMPERATURE FATIGUE AND CREEP BEHAVIOR OF CERA MIC MATRIX COMPOSITES FOR EXHAUST NOZZLE APPLICATIONS
 03/11/1998 - 12/23/1998 FY98: \$119,082 Total: \$119,082
Prin. Invest.: A HAQUE, H MAHFUZ, U VAIDA
Tech. Officer: LERC/M J VERILLE, LERC/J E GRADY
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 5 346 TUSKEGEE UNIVERSITY **1083**
CENTER FOR LIDAR AND ATMOSPHERIC SCIENCES STUDENTS
 07/01/1998 - 07/31/2003 FY98: \$499,839 Total: \$499,839
Prin. Invest.: N O EGIEBOR
Tech. Officer: HQ/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 9 51 TUSKEGEE UNIVERSITY **1084**
CENTER FOR FOOD & ENVIRON SYS ... (CFESH)
 07/31/1997 - 12/31/1998 FY98: \$750,000 Total: \$1,750,000
Prin. Invest.: W A HILL
Tech. Officer: JSC/D BARTA
CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

NGT 5 90033 TUSKEGEE UNIVERSITY **1085**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 02/20/1997 - 08/14/1998 FY98: \$12,000 Total: \$24,000
Prin. Invest.: E J SHEPPARD
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NGT 9 18 TUSKEGEE UNIVERSITY **1086**
TRAINING GRANT
 07/18/1997 - 05/30/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: P A LORETAN
Tech. Officer: JSC/J ATKINSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 37 TUSKEGEE UNIVERSITY **1087**
REFINEMENT OF HYDROPONIC GROWING SYSTEMS
 08/17/1998 - 05/24/1999 FY98: \$24,736 Total: \$24,736
Prin. Invest.: P A LORETAN
Tech. Officer: JSC/L M ARMENDARIZ
CASE Category: 55 - AGRICULTURE

NAG 5 4551 UNIVERSITY OF ALABAMA - BIRMINGHAM **1088**
A LASER PLASMA SPECTROMETER SYSTEM SUITABLE FOR IN-SPACE CRAFT
 05/08/1997 - 04/30/1999 FY98: \$46,902 Total: \$150,313
Prin. Invest.: D J WADOWIAK
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4581 UNIVERSITY OF ALABAMA - BIRMINGHAM **1089**
MOSSBAUER SPECTROSCOPY AS A TOOL FOR MARTIAN EXOPROSPECTING
 05/20/1997 - 01/31/1999 FY98: \$40,000 Total: \$80,000
Prin. Invest.: D J WADOWIAK
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4853 UNIVERSITY OF ALABAMA - BIRMINGHAM **1090**
FORMATION OF THE HYDROCARBONS OF CARBONACEOUS CHONDRITES
 07/23/1997 - 03/31/2001 FY98: \$27,000 Total: \$65,612
Prin. Invest.: D WADOWIAK
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6281 UNIVERSITY OF ALABAMA - BIRMINGHAM **1091**
MICROBIAL MONITORING BASED ON QUANTITATIVE PCR
 08/29/1997 - 06/30/1998 FY98: \$0 Total: \$189,744
Prin. Invest.: D CASSELL
Tech. Officer: GSFC/G FOGLEMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6811 UNIVERSITY OF ALABAMA - BIRMINGHAM **1092**
INVESTIGATION OF THE CONTRIBUTION OF POLYCYCLIC AROMATIC HYDROCARBONS TO INTERSTELLAR ULTRAVIOLET EMISSIONS
 01/05/1998 - 12/31/1998 FY98: \$26,000 Total: \$26,000
Prin. Invest.: T WADOWIAK
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 6973 UNIVERSITY OF ALABAMA - BIRMINGHAM **1093**
FORMATION OF THE HYDROCARBONS OF CARBONACEOUS CHONDRITES
 03/13/1998 - 02/28/2001 FY98: \$0 Total: \$0
Prin. Invest.: T J WADOWIAK
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7073 UNIVERSITY OF ALABAMA - BIRMINGHAM **1094**
REPEATING IMPACT TOOL FOR IN-SITU GEOLOGY INVESTIGATIONS
 03/06/1998 - 03/31/1999 FY98: \$30,966 Total: \$30,966
Prin. Invest.: T J WADOWIAK
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 8 1146 UNIVERSITY OF ALABAMA – BIRMINGHAM 1095
RESEARCH ON DEVELOPMENT OF ROBOTIC TECHNIQUES
 09/13/1995 – 09/12/1999 FY98: \$113,943 Total: \$628,028
Prin. Invest.: L J DELUCAS
Tech. Officer: GSFC/J ROGERS
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 8 1162 UNIVERSITY OF ALABAMA – BIRMINGHAM 1096
INVESTIGATION OF MACROMOLECULAR TRANSPORT
 09/01/1995 – 08/31/1999 FY98: \$99,556 Total: \$390,980
Prin. Invest.: L J DELUCAS
Tech. Officer: MSFC/T Y MILLER, MSFC/D C CARTER
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1193 UNIVERSITY OF ALABAMA – BIRMINGHAM 1097
"ROBOTIC ACQUISITION & CRYOGENIC PRESERVATION OF CRYSTALS"
 09/01/1995 – 09/19/1997 FY98: -\$628 Total: \$277,571
Prin. Invest.: C D SMITH
Tech. Officer: MSFC/J X HO, MSFC/D C CARTER
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1228 UNIVERSITY OF ALABAMA – BIRMINGHAM 1098
THE EFFECT OF CONVECTION ON MORPHOLOGICAL STABILITY
 05/01/1996 – 04/30/2000 FY98: \$50,000 Total: \$200,000
Prin. Invest.: J B ANDREWS
Tech. Officer: MSFC/C R TALLEY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 9 1050 UNIVERSITY OF ALABAMA – BIRMINGHAM 1099
DEVELOPMENT OF SAMPLE COLLECTION AND PREPARATION TECHNOLOGY
 08/06/1998 – 08/11/1999 FY98: \$84,000 Total: \$84,000
Prin. Invest.: J I GLASS
Tech. Officer: KSCI/
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NAGW 813 UNIVERSITY OF ALABAMA – BIRMINGHAM 1100
MICROMOLECULAR CRYSTALLOGRAPHY IN SPACE
 09/15/1985 – 07/01/1998 FY98: \$0 Total: \$25,815,856
Prin. Invest.: C E BUGG, K M PRUITT
Tech. Officer: HQ/A VILLAMIL, HQ/A VILLAMIL
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAGW 4079 UNIVERSITY OF ALABAMA – BIRMINGHAM 1101
THE IR EMITTING AROMATIC COMPONENT OF THE INTERSTELLAR & CIRCUMSTELLAR MEDIUMS
 07/13/1994 – 06/30/1997 FY98: \$0 Total: \$106,027
Prin. Invest.: T J WDOWIAK
Tech. Officer: HQ/M MEYER
CASE Category: 13 – PHYSICS

NAGW 4158 UNIVERSITY OF ALABAMA – BIRMINGHAM 1102
FORMATION OF THE HYDROCARBONS OF CARBONACEOUS CHONDRITES
 09/26/1994 – 06/30/1997 FY98: \$0 Total: \$54,928
Prin. Invest.: T J WDOWIAK
Tech. Officer: HQ/P ROGERS
CASE Category: 12 – CHEMISTRY

NAGW 5081 UNIVERSITY OF ALABAMA – BIRMINGHAM 1103
MICROBIAL MONITORING BASED ON QUANTITATIVE PCR
 07/16/1996 – 06/30/1997 FY98: \$0 Total: \$220,152
Prin. Invest.: G CASSELL
Tech. Officer: HQ/V THORNE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAS 8 39717 UNIVERSITY OF ALABAMA – BIRMINGHAM 1104
RESEARCH STUDY
 01/29/1993 – 10/31/1998 FY98: \$0 Total: \$1,105,353
Prin. Invest.: J B ANDREWS
Tech. Officer: MSFC/T DELOACH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAS 8 40189 UNIVERSITY OF ALABAMA – BIRMINGHAM 1105
PROTEIN CRYSTAL GROWTH IN MICROGRAVITY
 04/01/1994 – 09/30/2001 FY98: \$3,934,000 Total: \$12,411,977
Prin. Invest.: L J DELUCAS
Tech. Officer: MSFC/D K COLLINS
CASE Category: 59 – LIFE SCIENCE, OTHER

NCC 8 126 UNIVERSITY OF ALABAMA – BIRMINGHAM 1106
FOR RES: "CONTINUATION OF SUPPORT FOR COMMERCIAL SPACE CTR, CTR FOR MACROMOLECULAR CRYSTALLOGRAPHY"
 01/27/1997 – 01/31/1999 FY98: \$8,480,599 Total: \$14,582,353
Prin. Invest.: L DELUCUS
Tech. Officer: MSFC/M NALL
CASE Category: 59 – LIFE SCIENCE, OTHER

NGT 70397 UNIVERSITY OF ALABAMA – BIRMINGHAM 1107
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 09/29/1994 – 06/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: W JONES
Tech. Officer: HQ/D K RUSSELL
CASE Category: 22 – COMPUTER SCIENCE

NGT 8 52845 UNIVERSITY OF ALABAMA – BIRMINGHAM 1108
GRADUATE STUDENT RESEARCH PROGRAM FELLOWSHIP
 09/12/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: C M LAWSON
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 13 – PHYSICS

NAG 1 1842 UNIVERSITY OF ALABAMA – HUNTSVILLE 1109
REDUCING THE STATION-TO-STATION VARIABILITY OF UMKEHR OZONE TRENDS USING SAGE MEASUREMENTS
 06/20/1996 – 06/30/1999 FY98: \$80,000 Total: \$200,000
Prin. Invest.: M J NEWCHURCH
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1898 UNIVERSITY OF ALABAMA – HUNTSVILLE 1110
EVALUATING THE INFORMATION CONTENT OF NEWLY RETRIEVED SAGE II NO2 MEASUREMENTS IN THE LOWER
 02/05/1997 – 02/04/1999 FY98: \$57,000 Total: \$130,511
Prin. Invest.: M J NEWCHURCH
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1955 UNIVERSITY OF ALABAMA – HUNTSVILLE 1111
CLOUDS AND THE EARTH'S RADIANT ENERGY SYSTEM SCIENTIFIC INVESTIGATION
 08/25/1997 – 10/31/1998 FY98: \$242,809 Total: \$347,809
Prin. Invest.: R WELCH
Tech. Officer: LARC/B A WIELICKI
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 2026 UNIVERSITY OF ALABAMA – HUNTSVILLE 1112
AEROSOL RETRIEVALS FROM HIGH RESOLUTION BROADBAND ATMOSPHERIC SOLAR OCCULTATION SPECTRA
 03/19/1998 – 12/31/1998 FY98: \$65,000 Total: \$65,000
Prin. Invest.: M J NEWCHURCH
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 2 985 UNIVERSITY OF ALABAMA – HUNTSVILLE 1113
MECHANISMS OF GRAVITY SENSING AND RESPONSE IN HEMA TOPOIETIC CELLS
 06/21/1995 – 12/31/1998 FY98: \$0 Total: \$270,883
Prin. Invest.: M L LEWIS
Tech. Officer: ARC/C M WINGET, ARC/C G JAHNS
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NAG 3 1740 UNIVERSITY OF ALABAMA – HUNTSVILLE 1114
ANALYSIS OF RESIDUAL ACCELERATION EFFECTS ON TRANSPORT AND SEGREGATION DURING DIRECTIONAL SOLIDIFICATION
 05/01/1995 – 10/31/1997 FY98: \$142 Total: \$124,855
Prin. Invest.: J D ALEXANDER, NONE
Tech. Officer: LERC/J C DUH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 3 1864 UNIVERSITY OF ALABAMA – HUNTSVILLE 1115
STABILITY LIMITS AND DYNAMICS OF NONAXISYMMETRIC LIQUID BRIDGES
 05/07/1996 – 05/06/2000 FY98: \$4,199 Total: \$195,800
Prin. Invest.: J D ALEXANDER
Tech. Officer: LERC/J C DUH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 2755 UNIVERSITY OF ALABAMA – HUNTSVILLE 1116
PULSE TIMING OF VELA X-1 AND CEN X-3; SEARCH FOR SOFT GAMMA-RAY EVENTS, ECT...
 10/18/1994 – 05/31/1997 FY98: \$0 Total: \$189,994
Prin. Invest.: J V PARADJIS
Tech. Officer: GSFC/J NORRIS, GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3003 UNIVERSITY OF ALABAMA – HUNTSVILLE 1117
SYSTEMATIC STUDY OF BLACK-HOLE CANDIDATES WITH GINGA DATA
 07/14/1995 – 07/31/1997 FY98: \$0 Total: \$62,000
Prin. Invest.: J V PARADJIS
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3027 UNIVERSITY OF ALABAMA – HUNTSVILLE 1118
ON THE ORIGIN AND EVOLUTION OF STELLAR CHROMOSPHERES, CORONAE AND WINDS
 10/02/1995 – 01/31/1999 FY98: \$0 Total: \$310,064
Prin. Invest.: Z E MUSIELAK
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3161 UNIVERSITY OF ALABAMA – HUNTSVILLE 1119
OBSERVATION OF A SHADOW IN THE DIFFUSE EUV BACKGROUND CAST BY AN IRAS CIRRUS CLOUD
 01/24/1996 – 07/31/1997 FY98: \$0 Total: \$65,519
Prin. Invest.: R LIEU
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 3164 UNIVERSITY OF ALABAMA – HUNTSVILLE 1120
THE DIFFUSE EUV AND X-RAY BACKGROUND AS A PROBE OF THE INTERSTELLAR MEDIUM
 02/02/1996 – 02/14/1999 FY98: \$0 Total: \$78,200
Prin. Invest.: R LIEU
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3269 UNIVERSITY OF ALABAMA – HUNTSVILLE 1121
LUMINOSITY DEPENDENCE OF THE X-RAY SPECTRA AND VARIABILITY; A SEARCH FOR ORBITAL DOPPLER EFFECTS
 07/02/1996 – 12/31/1998 FY98: \$0 Total: \$28,100
Prin. Invest.: J VAN PARADJIS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3271 UNIVERSITY OF ALABAMA – HUNTSVILLE 1122
STUDY OF VERY RAPID PHENOMENA IN SCO X-1
 07/01/1996 – 12/31/1998 FY98: \$0 Total: \$5,000
Prin. Invest.: J PARADJIS
Tech. Officer: GSFC/J SWANK
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 3402 UNIVERSITY OF ALABAMA – HUNTSVILLE 1123
VOYAGER L'VMAN-ALPHA AND CONTINUUM OBSERVATIONS OF THE SUN
 10/15/1996 – 10/14/1997 FY98: \$0 Total: \$3,700
Prin. Invest.: N C KEEL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3551 UNIVERSITY OF ALABAMA – HUNTSVILLE 1124
THE ROLE OF TURBULENCE IN HELIOSPHERIC PLASMAS
 12/09/1996 – 11/30/1999 FY98: \$37,000 Total: \$74,000
Prin. Invest.: A MILLER
Tech. Officer: GSFC/M L GOLDETEIN
CASE Category: 13 – PHYSICS

NAG 5 3554 UNIVERSITY OF ALABAMA – HUNTSVILLE 1125
THE BEHAVIOR AND PROPERTIES OF HTE HARD X-RAY COMPONENT IN THE QS TEL
 12/14/1996 – 12/14/1998 FY98: \$0 Total: \$13,000
Prin. Invest.: R LIEU
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3672 UNIVERSITY OF ALABAMA – HUNTSVILLE 1126
A STUDY OF PULSE SHAPE EVOLUTION AND X-RAY REPROCESSING
 01/02/1997 – 12/31/1997 FY98: \$0 Total: \$9,500
Prin. Invest.: J V PARADJIS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3674 UNIVERSITY OF ALABAMA – HUNTSVILLE 1127
STUDY OF THE TEMPORAL AND SPECTRAL VARIABILITY OF WITH BATSE
 01/02/1997 – 01/14/1999 FY98: \$63,000 Total: \$133,500
Prin. Invest.: J V PARADIJS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3675 UNIVERSITY OF ALABAMA – HUNTSVILLE 1128
A STUDY OF TERRESTRIAL GAMMA-RAY FLASHES OBSERVED
 01/02/1997 – 01/14/1999 FY98: \$24,000 Total: \$34,001
Prin. Invest.: R MALLOZZI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3705 UNIVERSITY OF ALABAMA – HUNTSVILLE 1129
EUV EMISSION FROM CLUSTERS OF GALAXIES AN EUVE STUDY OF THE ACCRETION MODE CHANGES IN THE
 02/11/1997 – 02/14/1998 FY98: \$0 Total: \$23,423
Prin. Invest.: R LIEU
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 3805 UNIVERSITY OF ALABAMA – HUNTSVILLE 1130
LONG TERM MONITORING OF THE X-RAY PULSAR 4U1538-52 LONG TERM MONITORING AND THE SPECTRUM OF AQUILA X
 12/12/1996 – 12/14/1998 FY98: \$15,044 Total: \$51,044
Prin. Invest.: W PACIEBAB
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3828 UNIVERSITY OF ALABAMA – HUNTSVILLE 1131
STUDY OF GRB DETECTED BY BATSE/COMPTON AND PGS/MAR
 02/11/1997 – 08/14/1998 FY98: \$0 Total: \$10,000
Prin. Invest.: R PREECE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3905 UNIVERSITY OF ALABAMA – HUNTSVILLE 1132
ORBITING ARRAY OF WIDE-ANGLE LIGHT COLLECTORS (OWL ORBITING EYES TO STUDY AIR SHOWERS INITIATED BY 1
 02/26/1997 – 05/31/1998 FY98: \$0 Total: \$60,000
Prin. Invest.: Y TAKAHASHI
Tech. Officer: GSFC/J F ORMES
CASE Category: 11 – ASTRONOMY

NAG 5 4003 UNIVERSITY OF ALABAMA – HUNTSVILLE 1133
AUTOMATED IDENTIFICATION OF MORPHOLOGICAL SIGNATUR IMAGES
 03/06/1997 – 02/28/1999 FY98: \$109,000 Total: \$214,000
Prin. Invest.: D G RICHARDS
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 4027 UNIVERSITY OF ALABAMA – HUNTSVILLE 1134
DIAGNOSTICS OF MASS MOTIONS IN SOLAR FLARES
 03/26/1997 – 03/31/1999 FY98: \$61,833 Total: \$163,833
Prin. Invest.: D EMSLIE
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 – PHYSICS

NAG 5 4111 UNIVERSITY OF ALABAMA – HUNTSVILLE 1135
FAST SPECTROSCOPY OF Z SOURCES; OBSERVATIONS OF TH BURST
 04/28/1997 – 04/14/1999 FY98: \$0 Total: \$26,000
Prin. Invest.: J VAN PARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4230 UNIVERSITY OF ALABAMA – HUNTSVILLE 1136
THEORETICAL AND EXPERIMENTAL STUDIES OF THE ISOTOP SOLAR GRAINS FROM PRIMITIVE METEORITES
 03/24/1997 – 04/30/1999 FY98: \$25,000 Total: \$75,000
Prin. Invest.: D J WASSERBURG
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4268 UNIVERSITY OF ALABAMA – HUNTSVILLE 1137
THERMAL STRUCTURE AND COMPOSITION OF THE INNER MAG
 03/25/1997 – 05/14/1999 FY98: \$28,911 Total: \$89,670
Prin. Invest.: D H COMFORT
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 – PHYSICS

NAG 5 4419 UNIVERSITY OF ALABAMA – HUNTSVILLE 1138
TOO OBSERVATIONS OF CYG X-1 DURING PERIODS OF INTE FLICKERING
 05/01/1997 – 04/30/1999 FY98: \$0 Total: \$10,000
Prin. Invest.: J VAN PARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4482 UNIVERSITY OF ALABAMA – HUNTSVILLE 1139
LUMINOSITY DEPENDENCE OF THE X-RAY SPECTRA AND VAR ATOLL SOURCES
 05/15/1997 – 05/14/1999 FY98: \$0 Total: \$16,000
Prin. Invest.: J VANPARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4604 UNIVERSITY OF ALABAMA – HUNTSVILLE 1140
THREE-DIMENSIONAL NUMERICAL SIMULATION OF NONLINEA IN THE AURORAL IONOSPHERE
 05/13/1997 – 06/30/1999 FY98: \$13,000 Total: \$89,957
Prin. Invest.: D SINGH
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 – PHYSICS

NAG 5 4608 UNIVERSITY OF ALABAMA – HUNTSVILLE 1141
ION ACCELERATION AND ABUNDANCE ENHANCEMENTS IN IMP
 05/20/1997 – 03/31/2001 FY98: \$20,417 Total: \$55,417
Prin. Invest.: P A MILLER
Tech. Officer: GSFC/M A FORMAN
CASE Category: 11 – ASTRONOMY

NAG 5 4762 UNIVERSITY OF ALABAMA – HUNTSVILLE 1142
DETERMINING GRAVITY WAVE ENERGETICS FROM COINCIDEN GROUND-BASED OBSERVATIONS OF NIGHTGLOW EMISSIONS
 06/05/1997 – 05/31/2000 FY98: \$0 Total: \$40,000
Prin. Invest.: D P HICKEY
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 – PHYSICS

NAG 5 4788 UNIVERSITY OF ALABAMA - HUNTSVILLE 1143
TESTING AND EVALUATION OF THE EOSDIS CORE SYSTEM:
 07/03/1997 - 06/30/1998 FY98: \$0 Total: \$88,000
Prin. Invest.: R WELCH
Tech. Officer: GSFC/H RAMPRIYAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4878 UNIVERSITY OF ALABAMA - HUNTSVILLE 1144
TOO OBSERVATIONS OF SOFT GAMMA REPEATERS
 07/03/1997 - 06/30/1998 FY98: \$0 Total: \$8,000
Prin. Invest.: J VANPARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4893 UNIVERSITY OF ALABAMA - HUNTSVILLE 1145
**COUPLING OF MICRO-AND MESO-SCALE PROCESSES DURING IC REFI-
 LING**
 06/20/1997 - 06/30/1999 FY98: \$11,667 Total: \$46,667
Prin. Invest.: D SINGH, NONE
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4913 UNIVERSITY OF ALABAMA - HUNTSVILLE 1146
PHENOMENA - ORIENTED DATA MINING
 07/02/1997 - 03/31/1998 FY98: \$0 Total: \$369,994
Prin. Invest.: S GRAVES
Tech. Officer: GSFC/R KREIDER
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4951 UNIVERSITY OF ALABAMA - HUNTSVILLE 1147
ELECTRON ACCELERATION IN IMPULSIVE SOLAR FLARES
 06/23/1997 - 04/30/1999 FY98: \$40,500 Total: \$127,500
Prin. Invest.: P A MILLER
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 5112 UNIVERSITY OF ALABAMA - HUNTSVILLE 1148
**DEVELOPMENT OF SIFTER WITH SIMULTANEOUS TRACKING AND CAL-
 ORIMETRY**
 02/12/1997 - 03/31/1999 FY98: \$56,000 Total: \$128,000
Prin. Invest.: G N PENDLETON
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6021 UNIVERSITY OF ALABAMA - HUNTSVILLE 1149
ACCRETING BLACK HOLES - AN ALL OUT EFFORT
 08/19/1997 - 08/14/1999 FY98: \$70,000 Total: \$155,000
Prin. Invest.: J VAN PARADIJS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6040 UNIVERSITY OF ALABAMA - HUNTSVILLE 1150
RADIATIVE EFFECTS OF SUBSONIC JET CONTRAILS
 09/03/1997 - 06/30/1998 FY98: \$52,000 Total: \$52,000
Prin. Invest.: R WELCH
Tech. Officer: GSFC/R STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6123 UNIVERSITY OF ALABAMA - HUNTSVILLE 1151
ENERGY BALANCE IN SOLAR STRUCTURES
 08/11/1997 - 01/31/1999 FY98: \$0 Total: \$76,575
Prin. Invest.: D EMSLIE
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 - PHYSICS

NAG 5 6745 UNIVERSITY OF ALABAMA - HUNTSVILLE 1152
**BATSE OBSERVATIONS OF THE PICCINOTTI SAMPLE II: VA RIABILITY AND
 SPECTRAL ANALYSIS**
 02/09/1998 - 02/14/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: N S PACIESAS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6746 UNIVERSITY OF ALABAMA - HUNTSVILLE 1153
IS THE NARROW E-PEAK DISTRIBUTION OF GAMMA-RAY BURSTS REAL?
 01/12/1998 - 01/14/1999 FY98: \$15,000 Total: \$15,000
Prin. Invest.: J BRAINERD
Tech. Officer: GSFC/J NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6747 UNIVERSITY OF ALABAMA - HUNTSVILLE 1154
**HIGH-ENERGY SPECTRAL AND TEMPORAL CONSTRAINTS ON COSMO-
 LOGICAL GAMMA-RAY BURSTS**
 01/12/1998 - 01/14/1999 FY98: \$27,958 Total: \$27,958
Prin. Invest.: R KIPPEN
Tech. Officer: GSFC/J NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6868 UNIVERSITY OF ALABAMA - HUNTSVILLE 1155
EVALUATION OF LINE CANDIDATES IN BATSE GRB SPECTRA
 02/24/1998 - 02/28/1999 FY98: \$10,800 Total: \$10,800
Prin. Invest.: M S BRIGGS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6930 UNIVERSITY OF ALABAMA - HUNTSVILLE 1156
IMPROVING THE LOCATION ACCURACY OF BACODINE
 01/29/1998 - 01/31/1999 FY98: \$49,984 Total: \$49,984
Prin. Invest.: G N PENDLETON
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6984 UNIVERSITY OF ALABAMA - HUNTSVILLE 1157
**QUANTIFICATION OF CHANGES IN THEMOSPHERIC O/N2 FROM OBSERVA-
 TIONS OF UV AIRGLOW AND AURORA**
 02/10/1998 - 03/31/1999 FY98: \$74,773 Total: \$74,773
Prin. Invest.: G A GERMANY
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7004 UNIVERSITY OF ALABAMA - HUNTSVILLE 1158
THE WARM PHASE OF THE INTRACUSTER MEDIUM
 02/10/1998 - 02/14/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: R LIEU
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7105 UNIVERSITY OF ALABAMA – HUNTSVILLE **1159**
XTE PROPOSAL – A SURVEY OF THE 30 DAY CYCLE IN LMC X-4; A STUDY OF PULSESHAPES EVOLUTION AND X-RAY R
 03/13/1998 – 03/31/1999 FY98: \$20,000 Total: \$20,000
Prin. Invest.: L VANPARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7106 UNIVERSITY OF ALABAMA – HUNTSVILLE **1160**
XTE PROPOSAL – BATSE AND VLA TRIGGERED OBSERVATION S OF CYG-NUS X-3
 03/13/1998 – 03/31/1999 FY98: \$5,745 Total: \$5,745
Prin. Invest.: W PACIESAS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7269 UNIVERSITY OF ALABAMA – HUNTSVILLE **1161**
DERIVATION OF TROPOSPHERIC OZONE CLIMATOLOGY AND TRENDS FROM TOMS DATA
 05/07/1998 – 05/14/1999 FY98: \$85,000 Total: \$85,000
Prin. Invest.: M NEWCHURCH
Tech. Officer: GSFC/S CHANDRA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7270 UNIVERSITY OF ALABAMA – HUNTSVILLE **1162**
VALIDATION AND INTERCOMPARISON OF TOMS AEROSOL PROFILES USING SATELLITE AND GROUND BASED MEASUREMENTS
 04/22/1998 – 04/30/1999 FY98: \$75,000 Total: \$75,000
Prin. Invest.: S A CHRISTOPHER
Tech. Officer: GSFC/J R HERMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7382 UNIVERSITY OF ALABAMA – HUNTSVILLE **1163**
XTE PROPOSAL – COMPREHENSIVE SURVEY OF ATOLL SOURCES
 05/06/1998 – 06/30/1999 FY98: \$5,875 Total: \$5,875
Prin. Invest.: J PARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7414 UNIVERSITY OF ALABAMA – HUNTSVILLE **1164**
XTE PROPOSAL (30079) – SIMULTANEOUS RXTE AND RADIO OBSERVATIONS OF THE RAPID BURSTER IN OUTBURST
 06/02/1998 – 06/30/1999 FY98: \$5,000 Total: \$5,000
Prin. Invest.: J VAN PARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7415 UNIVERSITY OF ALABAMA – HUNTSVILLE **1165**
XTE PROPOSAL (30056) ASM-TRIGGERED TOO OBSERVATIONS OF KILOHERTZ OSCILLATIONS IN THREE ATOLL
 06/02/1998 – 06/30/1999 FY98: \$5,450 Total: \$5,450
Prin. Invest.: J VANPARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7482 UNIVERSITY OF ALABAMA – HUNTSVILLE **1166**
XTE PROPOSAL (30104) SEARCH FOR LOW-FLUX PULSATIONS FROM EXO 2030+375
 06/01/1998 – 05/31/1999 FY98: \$8,875 Total: \$8,875
Prin. Invest.: M T STOLLBERG
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7483 UNIVERSITY OF ALABAMA – HUNTSVILLE **1167**
XTE PROPOSAL (30178) XTE TIMING AND SPECTROSCOPY OF F 1630-47 DURING A SECOND OUTBURST
 06/01/1998 – 06/30/1999 FY98: \$6,292 Total: \$6,292
Prin. Invest.: S W DIETERS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7494 UNIVERSITY OF ALABAMA – HUNTSVILLE **1168**
XTE PROPOSAL (30062) A VARYING KHZ PEAK SEPARATION IN 4U 1608-52?
 06/29/1998 – 06/30/1999 FY98: \$7,025 Total: \$7,025
Prin. Invest.: J VANPARADIJS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7542 UNIVERSITY OF ALABAMA – HUNTSVILLE **1169**
INFLUENCE OF ANTECEDENT LAND SURFACE HYDROLOGY ON MESOSCALE WATER AND ENERGY PROCESSES
 06/18/1998 – 05/31/1999 FY98: \$8,000 Total: \$8,000
Prin. Invest.: R MCNIDER
Tech. Officer: GSFC/M JASINSKI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7655 UNIVERSITY OF ALABAMA – HUNTSVILLE **1170**
REMOTE SENSING OF MAGNETOSPHERIC STRUCTURE USING (U,B,K) ANALYSIS OF STP PARTICLE AND FIELD DATA
 09/15/1998 – 08/31/1999 FY98: \$43,706 Total: \$43,706
Prin. Invest.: D SHELDON
Tech. Officer: GSFC/D EVANS
CASE Category: 11 – ASTRONOMY

NAG 5 7665 UNIVERSITY OF ALABAMA – HUNTSVILLE **1171**
XTE PROPOSAL (30152) – HARD X-RAY LOW STATE OBSERVATIONS OF MICROQUASARS
 09/09/1998 – 09/30/1999 FY98: \$7,686 Total: \$7,686
Prin. Invest.: S N ZHANG
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7667 UNIVERSITY OF ALABAMA – HUNTSVILLE **1172**
XTE PROPOSAL (30705) – SNAPSHOTS OF NEW ASM/BATSE TRANSIENT SOURCES WITH RXTE
 09/21/1998 – 09/30/1999 FY98: \$2,375 Total: \$2,375
Prin. Invest.: S ZHANG
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 8 984 UNIVERSITY OF ALABAMA – HUNTSVILLE **1173**
CRYSTAL RESEARCH
 12/06/1993 – 08/30/1997 FY98: \$3,601 Total: \$205,165
Prin. Invest.: A NADARAJAH
Tech. Officer: MSFC/M L PUSEY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1071 UNIVERSITY OF ALABAMA – HUNTSVILLE **1174**
SURFACE CHARACTERIZATION AND CONTAMINATION ANALYSIS
 04/01/1994 – 02/28/1999 FY98: \$51,760 Total: \$276,887
Prin. Invest.: G L WORKMAN, B J SCHROER
Tech. Officer: MSFC/B H NERREN, MSFC/D BURNS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 8 1084 UNIVERSITY OF ALABAMA - HUNTSVILLE 1175
ON WAVE PROCESSES IN THE SOLAR ATMOSPHERE
 08/22/1994 - 08/22/1998 FY98: \$0 Total: \$80,704
Prin. Invest.: Z E MUSIELAK
Tech. Officer: MSFC/E J REICHMANN, MSFC/J M DAVIS
CASE Category: 11 - ASTRONOMY

NAG 8 1122 UNIVERSITY OF ALABAMA - HUNTSVILLE 1176
EDUCATION GRANT 1995 SUMMER TEACHER ENRICHMENT PROGRAM
 04/03/1995 - 07/02/1997 FY98: \$0 Total: \$187,000
Prin. Invest.: G R KARR
Tech. Officer: MSFC/J S EHMEH, MSFC/T R GUTHRIE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1161 UNIVERSITY OF ALABAMA - HUNTSVILLE 1177
NUCLEATION & CONVECTION EFFECTS IN PROTEIN CRYSTAL GROWTH
 07/25/1995 - 07/24/1998 FY98: \$102,855 Total: \$588,266
Prin. Invest.: F E ROSENBERGER
Tech. Officer: MSFC/T Y MILLER, MSFC/D C CARTER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1216 UNIVERSITY OF ALABAMA - HUNTSVILLE 1178
HYBRID ROCKET POWERED UPPER STAGE TECHNOLOGY GROUND DEMONSTRATOR PROJECT
 11/30/1995 - 11/30/1998 FY98: \$0 Total: \$60,055
Prin. Invest.: R A FREDERICK, D A EVANS
Tech. Officer: MSFC/T KUBLIN
CASE Category: 46 - MECHANICAL ENGR

NAG 8 1217 UNIVERSITY OF ALABAMA - HUNTSVILLE 1179
HIGH SPEED HIGH PRECISION DRIV MECHANISM
 12/01/1995 - 11/30/1998 FY98: \$0 Total: \$84,550
Prin. Invest.: N LI
Tech. Officer: MSFC/R KOCZOR
CASE Category: 46 - MECHANICAL ENGR

NAG 8 1229 UNIVERSITY OF ALABAMA - HUNTSVILLE 1180
A THEORETICAL & EXPERIMENTAL INVESTIGATION OF VIBRATIONAL CONTROL OF BRIDGMAN CRYSTAL GROWTH TEC
 05/31/1996 - 05/31/2000 FY98: \$87,492 Total: \$212,488
Prin. Invest.: D FEDOSEYER
Tech. Officer: MSFC/C R TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1307 UNIVERSITY OF ALABAMA - HUNTSVILLE 1181
RESEARCH "SHOOTING STAR EXPERIMENTAL SOLAR THERMAL ENGINE AND CONCENTRATOR TESTING AT UAH
 09/19/1996 - 12/31/1998 FY98: \$117,671 Total: \$308,379
Prin. Invest.: J BONEMETTI, D A GREGORY
Tech. Officer: MSFC/S PATEL, MSFC/S TUCKER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 8 1308 UNIVERSITY OF ALABAMA - HUNTSVILLE 1182
RESEARCH "HIGH-STRENGTH MAGNET LEVITATION SYSTEM & HIGH SPEED CRYOGENIC ROTATION MECHANISMS
 09/20/1996 - 03/23/1999 FY98: \$0 Total: \$50,000
Prin. Invest.: N LI
Tech. Officer: MSFC/J T HOWELL
CASE Category: 13 - PHYSICS

NAG 8 1341 UNIVERSITY OF ALABAMA - HUNTSVILLE 1183
FOR RESEARCH "MIDCOURSE SPACE EXPERIMENT"
 03/28/1997 - 03/30/1998 FY98: \$0 Total: \$99,000
Prin. Invest.: D B POLLOCK
Tech. Officer: MSFC/W BRANTLEY
CASE Category: 11 - ASTRONOMY

NAG 8 1354 UNIVERSITY OF ALABAMA - HUNTSVILLE 1184
R/S PROTEIN PRECIPITANT SPECIFIC CRITERIA FOR THE IMPACT OF REDUCED GRAVITY ON CRYSTAL PEFECTON
 06/04/1997 - 11/30/1998 FY98: \$205,381 Total: \$308,381
Prin. Invest.: F ROSENBERGER
Tech. Officer: MSFC/C R TALLEY, MSFC/J P DOWNEY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1355 UNIVERSITY OF ALABAMA - HUNTSVILLE 1185
RESEARCH "INFRARED SIGNATURES FOR MAMMALIAN CELLS IN CULTURE"
 06/26/1997 - 11/30/2000 FY98: \$120,991 Total: \$186,987
Prin. Invest.: K CHITTUR
Tech. Officer: MSFC/C TALLEY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1388 UNIVERSITY OF ALABAMA - HUNTSVILLE 1186
1997 SUMMER TEACHER ENRICHMENT PROGRAM UNDER THE DIRECTION OF DR. GERALD R. KARR.
 07/01/1997 - 06/30/1999 FY98: \$0 Total: \$143,690
Prin. Invest.: G KARR, L FREEMAN
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1403 UNIVERSITY OF ALABAMA - HUNTSVILLE 1187
THEORETICAL ANALYSIS FOR CONSTRUCTION OF A NON- GRAVITY LABORATORY ON ORBIT
 08/28/1997 - 02/27/1998 FY98: \$0 Total: \$10,000
Prin. Invest.: J SMALLEY
Tech. Officer: MSFC/J CAMPBELL
CASE Category: 12 - CHEMISTRY

NAG 8 1456 UNIVERSITY OF ALABAMA - HUNTSVILLE 1188
GROUND BASED EXPERIMENTS IN SUPPORT OF MICRO- GRAVITY RESEARCH RESULTS VAPOR GROWTH OF ORGANIC
 03/31/1998 - 01/31/2002 FY98: \$60,000 Total: \$60,000
Prin. Invest.: A T ZUGRAV
Tech. Officer: MSFC/C TALLEY
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1464 UNIVERSITY OF ALABAMA - HUNTSVILLE 1189
REDUCTION OF CONVECTION IN CLOSED TUBE VAPOR GROWTH EXPERIMENTS
 03/24/1998 - 09/30/1999 FY98: \$66,667 Total: \$66,667
Prin. Invest.: R J NAUMANN
Tech. Officer: MSFC/C TALLEY
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1476 UNIVERSITY OF ALABAMA – HUNTSVILLE 1190
THERMOPHYSICAL PROPERTY MEASUREMENTS OF TE-BASED II-VI SEMI-CONDUCTOR COMPOUNDS
 03/26/1998 – 09/30/2001 FY98: \$96,250 Total: \$96,250
Prin. Invest.: M BANISH
Tech. Officer: MSFC/S SPEARMAN
CASE Category: 56 – MEDICL

NAG 8 1548 UNIVERSITY OF ALABAMA – HUNTSVILLE 1191
STUDY OF INSPECTION OF CRITICAL SURFACES AND AEROSPACE SYSTEMS
 09/24/1998 – 09/24/1999 FY98: \$37,000 Total: \$37,000
Prin. Invest.: G WORKMAN
Tech. Officer: MSFC/S RUSSELL
CASE Category: 41 – AERONAUTICAL ENGR

NAG 9 1011 UNIVERSITY OF ALABAMA – HUNTSVILLE 1192
DEVELOP DYNAMIC GEOMAGNETIC CUTOFF RIGIDITY MODEL
 06/01/1998 – 12/01/1998 FY98: \$34,992 Total: \$34,992
Prin. Invest.: D F SMART
Tech. Officer: JSC/M GOLIGHTLY
CASE Category: 22 – COMPUTER SCIENCE

NAGW 812 UNIVERSITY OF ALABAMA – HUNTSVILLE 1193
MATERIAL PROCESSING
 09/15/1985 – 10/31/1997 FY98: \$0 Total: \$38,495,975
Prin. Invest.: G R KARR, C A LUNDQUIST
Tech. Officer: HQ/R P WHITTEN, HQ/A VILLAMIL
CASE Category: 47 – METAL & MATERIALS ENGR

NAGW 3540 UNIVERSITY OF ALABAMA – HUNTSVILLE 1194
NAGW-3540/UNIV ALABAMA/ AUTOMATED ANALYSIS OF ULTR A HIGH ENERGY COSMIC RAY EVENTS
 04/21/1993 – 08/31/1997 FY98: \$0 Total: \$234,895
Prin. Invest.: Y TAKAHASHI
Tech. Officer: HQ/W V JONES, HQ/G L WITHBROE
CASE Category: 13 – PHYSICS

NAGW 3617 UNIVERSITY OF ALABAMA – HUNTSVILLE 1195
THE OBSERVED CHARACTER OF FLARE ENERGY RELEASES
 05/26/1993 – 09/30/1997 FY98: \$443 Total: \$206,575
Prin. Invest.: A G EMSLIE
Tech. Officer: HQ/W J WAGNER, HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 3674 UNIVERSITY OF ALABAMA – HUNTSVILLE 1196
INVESTIGATE THE IMPROVEMENT OF INTERUSABILITY FOR NASA EOS DATA
 07/13/1993 – 04/30/1997 FY98: -\$1,040 Total: \$906,998
Prin. Invest.: M E BOTTS
Tech. Officer: HQ/M E MAIDEN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 3979 UNIVERSITY OF ALABAMA – HUNTSVILLE 1197
WAVE DRIVEN EXOTHERMIC HEATING IN THE MESOPAUSE REGION
 05/13/1994 – 10/31/1997 FY98: \$0 Total: \$230,578
Prin. Invest.: M P HICKEY
Tech. Officer: HQ/M M MELLOTT, HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4259 UNIVERSITY OF ALABAMA – HUNTSVILLE 1198
PHENOMENA ORIENTED DATA MINING
 01/31/1995 – 04/30/1998 FY98: \$0 Total: \$863,415
Prin. Invest.: S GRAVES
Tech. Officer: HQ/R S MCGINNIS
CASE Category: 22 – COMPUTER SCIENCE

NAGW 4378 UNIVERSITY OF ALABAMA – HUNTSVILLE 1199
ION ACCELERATION AND ABUNDANCE ENHANCEMENTS IN IMP ULSIVE SOLAR FLARES
 03/31/1995 – 03/31/1998 FY98: \$0 Total: \$77,753
Prin. Invest.: J A MILLER
Tech. Officer: HQ/W V JONES, HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4470 UNIVERSITY OF ALABAMA – HUNTSVILLE 1200
3-DIMENSIONAL NUMERICAL SIMULATION OF NONLINEAR LOW FREQUENCY HYBRID WAVE PROPAGATION
 05/15/1995 – 06/30/1998 FY98: \$0 Total: \$146,577
Prin. Invest.: N SINGH
Tech. Officer: HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4665 UNIVERSITY OF ALABAMA – HUNTSVILLE 1201
COMPREHENSIVE ANALYSES OF DATA COLLECTED FROM TEREK
 09/13/1995 – 11/30/1996 FY98: -\$37 Total: \$75,572
Prin. Invest.: S T WU
Tech. Officer: HQ/W J WAGNER, HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4749 UNIVERSITY OF ALABAMA – HUNTSVILLE 1202
OPTIMIZING THE MERGING STRATEGY FOR MSU GLOBAL GRIDDED TEMPERATURES
 09/12/1995 – 12/31/1998 FY98: \$0 Total: \$113,036
Prin. Invest.: J R CHRISTY
Tech. Officer: HQ/M E MAIDEN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAGW 5082 UNIVERSITY OF ALABAMA – HUNTSVILLE 1203
ELECTRON ACCELERATION
 06/04/1996 – 09/30/1997 FY98: \$0 Total: \$74,000
Prin. Invest.: J A MILLER
Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE
CASE Category: 13 – PHYSICS

NAS 5 31718 UNIVERSITY OF ALABAMA – HUNTSVILLE 1204
EOS ASTER/HIRIS INVESTIGATION
 01/09/1992 – 12/14/2001 FY98: \$138,026 Total: \$1,269,544
Prin. Invest.: R WELCH
Tech. Officer: GSFC/T BRAKE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAS 5 98036 UNIVERSITY OF ALABAMA – HUNTSVILLE 1205
GLAST INSTRUMENT TECHNOLOGY
 07/07/1998 – 02/15/1999 FY98: \$310,033 Total: \$310,033
Prin. Invest.: J PENDLETON
Tech. Officer: GSFC/M D JOSEPH
CASE Category: 11 – ASTRONOMY

NAS 8 37107 UNIVERSITY OF ALABAMA - HUNTSVILLE 1206
STUDY ENTITLED "RESEARCH ON ORBITAL PLASMA-ELECTRODYNAMICS."

03/17/1987 - 09/30/1998 FY98: \$0 Total: \$1,474,541
 Prin. Invest.: S T WU, N T SINGH, N SINGH
 Tech. Officer: MSFC/G W JOHNSTON, MSFC/M W CASTLEMAN
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAS 8 38609 UNIVERSITY OF ALABAMA - HUNTSVILLE 1207
ESSENTIAL ENGINEERING SERVICES, RESEARCH AND DEVELOPMENT CAPABILITY

04/24/1991 - 03/31/1997 FY98: -\$38,132 Total: \$10,226,287
 Prin. Invest.: W W VAUGHAN
 Tech. Officer: MSFC/L J SMITH, MSFC/D W HIPP
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 8 39716 UNIVERSITY OF ALABAMA - HUNTSVILLE 1208
RESEARCH STUDY

02/02/1993 - 05/31/1998 FY98: \$0 Total: \$1,251,588
 Prin. Invest.: F ROSENBERGER
 Tech. Officer: MSFC/L B JETER
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 8 97239 UNIVERSITY OF ALABAMA - HUNTSVILLE 1209
HISTORY OF MSFC MANUSCRIPT (CONTRACT TRANSFER FROM NAS8-38609)

03/31/1997 - 03/31/1999 FY98: \$0 Total: \$617,760
 Prin. Invest.: A J DUNAR
 Tech. Officer: MSFC/M D WRIGHT
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 8 98226 UNIVERSITY OF ALABAMA - HUNTSVILLE 1210
THE DESIGN AND DEVELOPMENT OF THE ORBITAL ARRAY OF WIDE ANGLE LENSES MISSION OPTICAL SYSTEM

07/01/1998 - 07/02/1998 FY98: \$200,000 Total: \$200,000
 Prin. Invest.: Y TAKAHASHI
 Tech. Officer: MSFC/M WATSON
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 140 UNIVERSITY OF ALABAMA - HUNTSVILLE 1211
CINTEX INTERNATIONAL INTEROPERABILITY EXTENSIONS TO EOSDIS

06/10/1996 - 08/31/1997 FY98: \$0 Total: \$59,974
 Prin. Invest.: S GRAVES, H CONOVER
 Tech. Officer: GSFC/Y ENLOVE
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 165 UNIVERSITY OF ALABAMA - HUNTSVILLE 1212
TO SUPPORT RESEARCH ACTIVITIES UNDER THE NASA EXPLORE STIMULATE COMPETITIVE RESEARCH (EPSCOR)

11/02/1996 - 05/31/1998 FY98: \$499,999 Total: \$1,499,998
 Prin. Invest.: J C GREGORY
 Tech. Officer: GSFC/L KEFFER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 22 UNIVERSITY OF ALABAMA - HUNTSVILLE 1213
GLOBAL CHANGE RESEARCH

09/01/1993 - 02/28/1998 FY98: \$472,495 Total: \$16,792,190
 Prin. Invest.: D J PERKEY, S O KIDDER, R T MCNIDER
 Tech. Officer: MSFC/L R GREENWOOD, MSFC/J SIMONDS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 8 65 UNIVERSITY OF ALABAMA - HUNTSVILLE 1214
RESEARCH & APPLIED TECHNOLOGY & DEVELOPMENT OF FUTURE PROGRAMS

02/15/1995 - 02/14/1999 FY98: \$2,976,743 Total: \$10,377,361
 Prin. Invest.: S T WU
 Tech. Officer: MSFC/U URBAN, MSFC/G J FISHMAN
 CASE Category: 13 - PHYSICS

NCC 8 99 UNIVERSITY OF ALABAMA - HUNTSVILLE 1215
SELF-DIFFUSION IN LIQUID ELEMENTS

05/24/1996 - 09/30/1998 FY98: \$464,988 Total: \$796,068
 Prin. Invest.: F ROSENBERGER
 Tech. Officer: MSFC/S SPEARMAN
 CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 8 123 UNIVERSITY OF ALABAMA - HUNTSVILLE 1216
RESEARCH RBCC EJECTOR RAMJET DESIGN OPTIMIZATION

11/22/1996 - 12/31/1998 FY98: \$34,426 Total: \$186,426
 Prin. Invest.: C HAWK
 Tech. Officer: MSFC/M FAZAH
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 8 124 UNIVERSITY OF ALABAMA - HUNTSVILLE 1217
FOR RESEARCH ENT. "DEVELOPMENT OF THE DELTA G EXPERIMENT"

12/04/1996 - 12/03/1998 FY98: \$0 Total: \$299,885
 Prin. Invest.: N LI
 Tech. Officer: MSFC/R KOCZOR, MSFC/D NOEVER
 CASE Category: 13 - PHYSICS

NCC 8 132 UNIVERSITY OF ALABAMA - HUNTSVILLE 1218
FOR RESEARCH: "CONSORTIUM FOR MATERIALS DEVELOPMENT IN SPACE."

01/29/1997 - 10/31/1998 FY98: \$1,010,668 Total: \$2,705,668
 Prin. Invest.: C A LUNDQUIST
 Tech. Officer: MSFC/J WATKINS
 CASE Category: 49 - ENGINEERING, OTHER

NCC 8 141 UNIVERSITY OF ALABAMA - HUNTSVILLE 1219
GLOBAL CHANGE RESEARCH RELATED TO THE EARTH'S ENERGY AND HYDROLOGIC CYCLE

09/22/1997 - 09/29/2002 FY98: \$5,143,456 Total: \$7,232,333
 Prin. Invest.: R MCNIDER
 Tech. Officer: MSFC/R GREENWOOD, MSFC/J SIMON
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 8 146 UNIVERSITY OF ALABAMA - HUNTSVILLE 1220
R/S INVESTIGATION OF SPACE BASED SOLID STATE COHERENT LIDAR UNDER DR. FARZIN AMZAJERDIAN

10/02/1997 - 03/31/2001 FY98: \$439,919 Total: \$439,919
 Prin. Invest.: F AMZAJERDIAN
 Tech. Officer: MSFC/S C JOHNSON, MSFC/B F JONES
 CASE Category: 49 - ENGINEERING, OTHER

NCC 9 49 UNIVERSITY OF ALABAMA - HUNTSVILLE 1221
SEDSAT 1 DEVELOPMENT AND LAUNCH

12/19/1996 - 01/01/1999 FY98: \$91,700 Total: \$226,533
 Prin. Invest.: M W MAIER
 Tech. Officer: JSC/C A O'NEILL
 CASE Category: 41 - AERONAUTICAL ENGR

NCCW 57 UNIVERSITY OF ALABAMA – HUNTSVILLE **1222**
EPSCOR PROGRAM
 08/08/1994 – 09/30/1997 FY98: \$0 Total: \$1,000,000
Prin. Invest.: J GREGORY
Tech. Officer: HQ/L KEFFER, HQ/E T SCHWARTZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 40010 UNIVERSITY OF ALABAMA – HUNTSVILLE **1223**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 09/28/1989 – 09/30/1997 FY98: \$0 Total: \$3,020,915
Prin. Invest.: C A LUNDQUIST, H WILSON
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 51299 UNIVERSITY OF ALABAMA – HUNTSVILLE **1224**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/06/1994 – 07/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J L HORWITZ
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 – PHYSICS

NGT 51355 UNIVERSITY OF ALABAMA – HUNTSVILLE **1225**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/01/1994 – 10/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J I ALEXANDER
Tech. Officer: HQ/J LYNCH, HQ/G A LESANE
CASE Category: 13 – PHYSICS

NGT 51400 UNIVERSITY OF ALABAMA – HUNTSVILLE **1226**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/28/1995 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J L HORWITZ
Tech. Officer: MSFC/F SIX
CASE Category: 13 – PHYSICS

NGT 51641 UNIVERSITY OF ALABAMA – HUNTSVILLE **1227**
GRAD STUD RES PROG
 08/13/1996 – 06/30/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: M P HICKEY
Tech. Officer: HQ/D HOLLAND
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 70390 UNIVERSITY OF ALABAMA – HUNTSVILLE **1228**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 08/23/1994 – 12/31/1997 FY98: \$0 Total: \$264,000
Prin. Invest.: P C RICHARDS
Tech. Officer: HQ/D K RUSSELL
CASE Category: 12 – CHEMISTRY

NGT 70421 UNIVERSITY OF ALABAMA – HUNTSVILLE **1229**
GSRP (UNDERREPRESENTED MINORITY & DISABLED FOCUS)
 09/06/1996 – 06/30/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: M SANGHADASA
Tech. Officer: HQ/B WHITE, HQ/M STOUTSENBERGER
CASE Category: 13 – PHYSICS

NGT 1 8021 UNIVERSITY OF ALABAMA – HUNTSVILLE **1230**
A SUMMER FACILTY FELLOWSHIP PROGRAM
 01/01/1976 – 03/31/1998 FY98: \$0 Total: \$4,885,388
Prin. Invest.: G R KARR
Tech. Officer: HQ/A S MCGEE, HQ/E T SCHWARTZ
CASE Category: 49 – ENGINEERING, OTHER

NGT 5 30168 UNIVERSITY OF ALABAMA – HUNTSVILLE **1231**
IMPACT OF AEROSOLS ON THE CLEAR SKY SHORTWAVE RADIATIVE FLUXES OVERBIOMASS BURNING REGIONS IN
 09/01/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R M WELCH, LI
Tech. Officer: HQ/A NURRIDIN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 40018 UNIVERSITY OF ALABAMA – HUNTSVILLE **1232**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM.
 01/09/1997 – 01/31/1999 FY98: \$523,810 Total: \$903,810
Prin. Invest.: J GREGORY
Tech. Officer: HQ/J E DASCH
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 40046 UNIVERSITY OF ALABAMA – HUNTSVILLE **1233**
THIS GRANT SUPPORTS A FELLOWSHIP UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM
 02/21/1997 – 12/31/1997 FY98: \$0 Total: \$74,766
Prin. Invest.: J GREORY
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50163 UNIVERSITY OF ALABAMA – HUNTSVILLE **1234**
AN EMPIRICAL MODEL OF CORONAL HEATING DEDUCED FROM SOHO OBSERVATIONS OF TRANSITION REGION DYNAMICS
 06/02/1998 – 07/31/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: E EMSLIE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 – PHYSICS

NGT 5 70004 UNIVERSITY OF ALABAMA – HUNTSVILLE **1235**
GRADUATE STUDENT RESEARCH PROGRAM – STUDENTS: MAYR PETTIGREW, AND RUBY LATHON
 08/26/1997 – 06/30/1999 FY98: \$0 Total: \$58,000
Prin. Invest.: P G RICHARDS
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 90020 UNIVERSITY OF ALABAMA – HUNTSVILLE **1236**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 01/24/1997 – 08/14/1998 FY98: \$0 Total: \$35,850
Prin. Invest.: S KOWEL
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 46 – MECHANICAL ENGR

NGT 8 52804 UNIVERSITY OF ALABAMA – HUNTSVILLE **1237**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/28/1995 – 07/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: D FEIKEMA
Tech. Officer: MSFC/J J HUTT
CASE Category: 46 – MECHANICAL ENGR

NGT 8 52812 UNIVERSITY OF ALABAMA - HUNTSVILLE **1238**
JOVE
 09/25/1995 - 09/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: D FORK
Tech. Officer: MSFC/J BILBRO
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52825 UNIVERSITY OF ALABAMA - HUNTSVILLE **1239**
R/S GRAD STUDENT RESEARCH PROGRAM
 08/26/1996 - 08/25/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: D HAWK
Tech. Officer: MSFC/F SIX, MSFC/E HYDE
CASE Category: 41 - AERONAUTICAL ENGR

NGT 8 52833 UNIVERSITY OF ALABAMA - HUNTSVILLE **1240**
GRADUATE STUDENT RESEARCHERS PROGRAM - FELLOWSHIP FOR GARRY M ESTEP
 09/25/1996 - 07/01/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: J L HORWITZ
Tech. Officer: MSFC/J R PRUITT
CASE Category: 13 - PHYSICS

NGT 8 52836 UNIVERSITY OF ALABAMA - HUNTSVILLE **1241**
1997 SUMMER FACULTY FELLOWSHIP PROGRAM
 03/28/1997 - 12/31/1998 FY98: \$0 Total: \$792,002
Prin. Invest.: G R KARR, L M FREEMAN
Tech. Officer: MSFC/J R DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52837 UNIVERSITY OF ALABAMA - HUNTSVILLE **1242**
"1997 NASA ACADEMY" UNDER THE DIRECTION OF DR. GERALD KARR.
 05/29/1997 - 12/01/1997 FY98: \$0 Total: \$69,377
Prin. Invest.: G R KARR
Tech. Officer: MSFC/J R DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52843 UNIVERSITY OF ALABAMA - HUNTSVILLE **1243**
GRADUATE STUDENT RESEARCHERS PROGRAM FELLOWSHIP
 08/05/1997 - 08/31/2000 FY98: \$0 Total: \$22,000
Prin. Invest.: Y B SHTESSEL
Tech. Officer: MSFC/J H DOWDY
CASE Category: 45 - ELECTRICAL ENGR

NGT 8 52848 UNIVERSITY OF ALABAMA - HUNTSVILLE **1244**
GSRP FELLOWSHIP FOR RUBY D LANTHAN, EXTENSION TO HQ GRANT
 03/20/1998 - 07/19/1998 FY98: \$7,333 Total: \$7,333
Prin. Invest.: S MESSIMER
Tech. Officer: MSFC/D DOWDY
CASE Category: 49 - ENGINEERING, OTHER

NGT 8 52855 UNIVERSITY OF ALABAMA - HUNTSVILLE **1245**
INVESTIGATION OF EJECTOR PERFORMANCE IN A ROCKET BASED COMBINED CYCLE SYSTEM
 07/23/1998 - 08/13/2000 FY98: \$22,000 Total: \$22,000
Prin. Invest.: B LANDRUM
Tech. Officer: MSFC/J F DOWDY
CASE Category: 46 - MECHANICAL ENGR

NGT 8 52863 UNIVERSITY OF ALABAMA - HUNTSVILLE **1246**
DETERMINATION OF H FROM THE INTERFEROMETRIC OBSERVATIONS OF THE SUNYAEV-DEL DOVICH EFFECT
 07/24/1998 - 08/13/2000 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J V PARADJIS
Tech. Officer: MSFC/J F DOWDY
CASE Category: 13 - PHYSICS

NGT 8 52865 UNIVERSITY OF ALABAMA - HUNTSVILLE **1247**
PARAMETERIZATION AND SCALE ISSUES ASSOCIATED WITH MACROSCALE WATERSHED MODELING
 07/27/1998 - 08/13/2000 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J F CRUISE
Tech. Officer: MSFC/J F DOWDY
CASE Category: 49 - ENGINEERING, OTHER

NGT 9 5 UNIVERSITY OF ALABAMA - HUNTSVILLE **1248**
DIAGNOSTICS OF EXTERNAL PLASMA
 05/31/1995 - 06/30/1997 FY98: -\$1,583 Total: \$42,417
Prin. Invest.: G KARR
Tech. Officer: JSC/D G SOCKOREZ
CASE Category: 13 - PHYSICS

NAG 3 1564 UNIVERSITY OF ALABAMA - UNIVERSITY **1249**
GENETIC ALGORITHMS SOFTWARE DEVELOPMENT AND APPLICATION TO CONTROLLER PARTITIONING
 01/14/1994 - 03/10/1997 FY98: -\$2,038 Total: \$149,094
Prin. Invest.: K S KRISHNAKUMAR
Tech. Officer: LERC/S GARG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2004 UNIVERSITY OF ALABAMA - UNIVERSITY **1250**
INTELLIGENT ENGINE CONTROL
 01/10/1997 - 09/30/1999 FY98: \$70,000 Total: \$114,982
Prin. Invest.: K S KRISHNAKUMAR
Tech. Officer: LERC/J R SAUS
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 1973 UNIVERSITY OF ALABAMA - UNIVERSITY **1251**
SURFACE BRIGHTNESS PROFILES AND ENERGETICS OF INTERCLUSTER GAS IN COOL GALAXY CLUSTERS
 05/19/1992 - 03/31/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: R E WHITE
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2402 UNIVERSITY OF ALABAMA - UNIVERSITY **1252**
THE TEMPERATURE, ABUNDANCE, ABSORPTION, AND DARK MATTER DISTRIBUTION IN CLUSTERS OF GALAXIES
 10/22/1993 - 10/31/1996 FY98: -\$189 Total: \$30,071
Prin. Invest.: H J HENRIKSEN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2574 UNIVERSITY OF ALABAMA - UNIVERSITY **1253**
ABUNDANCE GRADIENTS IN INTRACLUSTER GAS
 04/12/1994 - 04/14/1999 FY98: \$0 Total: \$73,909
Prin. Invest.: R E WHITE III
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2990 UNIVERSITY OF ALABAMA – UNIVERSITY 1254
STAR FORMATION AND THE INTERSTELLAR MEDIUM IN SO GALAXIES USING ROSAT POINTED OB
 06/30/1995 – 07/14/1998 FY98: -\$8,559 Total: \$39,341
Prin. Invest.: P B ESKRIDGE
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3336 UNIVERSITY OF ALABAMA – UNIVERSITY 1255
DUST EMISSION AND ABSORPTION IN BACKLIT SPIRAL GALAXIES
 08/09/1996 – 08/14/1999 FY98: \$0 Total: \$22,500
Prin. Invest.: W C KEEL
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4346 UNIVERSITY OF ALABAMA – UNIVERSITY 1256
PROJECT NOVA
 05/01/1997 – 02/28/1999 FY98: \$250,000 Total: \$700,000
Prin. Invest.: M FREEMAN
Tech. Officer: HQ/D V GALLAWAY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6053 UNIVERSITY OF ALABAMA – UNIVERSITY 1257
QUANTIFICATION OF NEUTRAL WIND VARIABILITY IN THE
 07/28/1997 – 06/30/1999 FY98: \$26,123 Total: \$101,890
Prin. Invest.: D RICHARD
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 – PHYSICS

NAG 5 6174 UNIVERSITY OF ALABAMA – UNIVERSITY 1258
NUMERICAL AND THEORETICAL STUDIES OF THE INITIATION OF THE CORONAL MASS EJECTIONS (CMES)
 08/05/1997 – 05/31/1999 FY98: \$25,884 Total: \$85,615
Prin. Invest.: D WU
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 – PHYSICS

NAG 5 6314 UNIVERSITY OF ALABAMA – UNIVERSITY 1259
FAR-WING LINE SHAPE: APPLICATION TO THE VENUSIAN
 09/11/1997 – 09/14/1999 FY98: \$69,000 Total: \$136,000
Prin. Invest.: D TIPPING
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6934 UNIVERSITY OF ALABAMA – UNIVERSITY 1260
ASCA PROPOSAL – A SEARCH FOR HOT GAS IN MERGING CLUSTERS
 01/30/1998 – 01/14/1999 FY98: \$26,000 Total: \$26,000
Prin. Invest.: R E WHITE, II
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 7035 UNIVERSITY OF ALABAMA – UNIVERSITY 1261
HIGH TIME-RESOLUTION ANALYSIS OF THE GRB LOW-ENERGY EXCESS WITH BATSE
 02/19/1998 – 02/14/1999 FY98: \$33,400 Total: \$33,400
Prin. Invest.: R D PREECE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 7060 UNIVERSITY OF ALABAMA – UNIVERSITY 1262
SAX PROPOSALS – STUDY OF GRO J1744-28 IN QUIESCENT AND TOO OBSERVATIONS OF AN OUTBURST
 03/02/1998 – 02/28/1999 FY98: \$6,700 Total: \$6,700
Prin. Invest.: J VANPARADIS
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 7220 UNIVERSITY OF ALABAMA – UNIVERSITY 1263
THE WARM PHASE OF THE INTRACLUSTER MEDIUM – A SYNOPSIS STUDY
 04/09/1998 – 04/14/1999 FY98: \$10,240 Total: \$10,240
Prin. Invest.: R LIEU
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 7380 UNIVERSITY OF ALABAMA – UNIVERSITY 1264
XTE PROPOSAL – STUDY OF KHZ QPO IN Z SOURCES
 05/06/1998 – 06/30/1999 FY98: \$4,114 Total: \$4,114
Prin. Invest.: J PARADIS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7381 UNIVERSITY OF ALABAMA – UNIVERSITY 1265
XTE PROPOSAL – MONITORING OBSERVATIONS OF GRO J1744-28
 05/06/1998 – 06/30/1999 FY98: \$4,101 Total: \$4,101
Prin. Invest.: J PARADIS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7702 UNIVERSITY OF ALABAMA – UNIVERSITY 1266
ESTIMATE THE INDIRECT AEROSOL EFFECT AND RETRIEVAL OF RELATED PARAMETERS FROM SATELLITE MEASUREMENT
 09/23/1998 – 09/30/1999 FY98: \$71,000 Total: \$71,000
Prin. Invest.: Q HAN
Tech. Officer: GSFC/M MISHCHENKO
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 8 228 UNIVERSITY OF ALABAMA – UNIVERSITY 1267
COOLING FLOW SPECTRA IN GALAXY CLUSTERS
 03/16/1992 – 03/14/1997 FY98: -\$5,387 Total: \$31,813
Prin. Invest.: R E WHITE
Tech. Officer: MSFC/J VARGUS
CASE Category: 11 – ASTRONOMY

NAG 8 279 UNIVERSITY OF ALABAMA – UNIVERSITY 1268
RESEARCH STUDY
 01/14/1993 – 03/31/1998 FY98: \$0 Total: \$193,589
Prin. Invest.: K W WHITAKER, K S KRISHNAKUMAR
Tech. Officer: MSFC/W T POWERS, MSFC/A E COOPER
CASE Category: 13 – PHYSICS

NAG 8 1301 UNIVERSITY OF ALABAMA – UNIVERSITY 1269
RESEARCH "1996 SUMMER TEACHER ENRICHMENT PROGRAM"
 07/24/1996 – 03/31/1998 FY98: -\$31,533 Total: \$155,467
Prin. Invest.: L FREEMAN, G KARR
Tech. Officer: MSFC/J PRIETT
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1322 UNIVERSITY OF ALABAMA - UNIVERSITY 1270
RESEARCH "LAUNCH VEHICLES WITH MHD PROPULSION STUDY"
 01/30/1997 - 01/30/1998 FY98: -\$3,645 Total: \$43,863
Prin. Invest.: J A MARTIN
Tech. Officer: MSFC/G A ROBERTSON
CASE Category: 13 - PHYSICS

NAG 8 1407 UNIVERSITY OF ALABAMA - UNIVERSITY 1271
EMA CONTROLLER ARCHITECTURE SELECTION AND DESIGN
 09/05/1997 - 09/04/1998 FY98: \$0 Total: \$45,000
Prin. Invest.: T MASKEY, D SCHINSTOCK
Tech. Officer: MSFC/J R COWAN
CASE Category: 46 - MECHANICAL ENGR

NAG 8 1422 UNIVERSITY OF ALABAMA - UNIVERSITY 1272
MULTIPLE YEAR GRANT FOR THE PURPOSE OF AEROELASTICITY IN MULTIDISCIPLINARY ANALYSIS AND DESIGN
 10/28/1997 - 10/31/1998 FY98: \$51,688 Total: \$51,688
Prin. Invest.: J A BRUNTY, N D HENDRIX
Tech. Officer: MSFC/J F MACPHERSON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 921 UNIVERSITY OF ALABAMA - UNIVERSITY 1273
DEVELOP RISK ID EXPERT SYSTEM FOR ISS
 12/16/1996 - 03/31/1998 FY98: \$0 Total: \$132,209
Prin. Invest.: G P MOYNIHAN
Tech. Officer: JSC/D K WILSON, JSC/F KUO
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 981 UNIVERSITY OF ALABAMA - UNIVERSITY 1274
STRESS IN BONES DURING BED REST STUDIES
 11/25/1997 - 08/31/1998 FY98: \$15,500 Total: \$15,500
Prin. Invest.: B A TODD
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 993 UNIVERSITY OF ALABAMA - UNIVERSITY 1275
STOCHASTIC SIMULATION ON INTERSTAGE DYNAMICS-ISS
 02/27/1998 - 02/28/1999 FY98: \$128,402 Total: \$128,402
Prin. Invest.: G P MOYNIHAN, R G BATSON
Tech. Officer: JSC/D M SORLEAU, JSC/F KUO
CASE Category: 49 - ENGINEERING, OTHER

NAGW 4405 UNIVERSITY OF ALABAMA - UNIVERSITY 1276
PROJECT NOVA
 04/21/1995 - 02/28/1998 FY98: \$0 Total: \$1,244,559
Prin. Invest.: D SUNAL, M FREEMAN
Tech. Officer: HQ/M HENDERSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 5221 UNIVERSITY OF ALABAMA - UNIVERSITY 1277
FAR-WING LINE SHAPE: APPLICATION TO VENUSIAN ATMOSPHERE
 11/13/1996 - 07/14/1998 FY98: \$0 Total: \$57,400
Prin. Invest.: T TIPPING
Tech. Officer: HQ/J BERGSTRALH, HQ/H C BRINTON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 8 39715 UNIVERSITY OF ALABAMA - UNIVERSITY 1278
PARTICLE INGULFMENT AND PUSHING BY SOLIDIFYING INTERFACES
 02/17/1993 - 12/31/1998 FY98: \$110,741 Total: \$858,007
Prin. Invest.: D M STEFANESCU, P A CURRERI, B K DHINDAW
Tech. Officer: MSFC/T DE LOACH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 8 114 UNIVERSITY OF ALABAMA - UNIVERSITY 1279
R/S HIGHLY REUSABLE SPACE TRANSPORTATION STUDY
 07/16/1996 - 08/15/1997 FY98: \$0 Total: \$58,800
Prin. Invest.: J A MARTIN
Tech. Officer: MSFC/J T HOWELL
CASE Category: 41 - AERONAUTICAL ENGR

NGT 70371 UNIVERSITY OF ALABAMA - UNIVERSITY 1280
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 08/22/1994 - 06/30/1997 FY98: -\$1,344 Total: \$42,656
Prin. Invest.: J K PARKER
Tech. Officer: HQ/D K RUSSELL
CASE Category: 46 - MECHANICAL ENGR

NGT 1 52111 UNIVERSITY OF ALABAMA - UNIVERSITY 1281
GRADUATE STUDENT RESEARCHER PROGRAM
 06/27/1995 - 06/30/1997 FY98: -\$94 Total: \$43,906
Prin. Invest.: C J TUCKER, K N FREEMAN
Tech. Officer: LARC/R A THOMPSON, LARC/R G WILMOTH
CASE Category: 41 - AERONAUTICAL ENGR

NGT 4 52403 UNIVERSITY OF ALABAMA - UNIVERSITY 1282
GENETICS-BASED ADAPTIVE AGENTS FOR STRATEGY LEARNING IN AEROSPACE APPLICATIONS
 07/16/1996 - 08/01/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: R E SMITH
Tech. Officer: DFRC/K GUPTA
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50081 UNIVERSITY OF ALABAMA - UNIVERSITY 1283
GRAVITY WAVE ENERGETICS DETERMINED FROM COINCIDENT GROUND-BASED OBSERVATIONS OF AIRGLOW EMISSIONS/ G
 08/26/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: D HICKEY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NGT 5 50123 UNIVERSITY OF ALABAMA - UNIVERSITY 1284
DETERMINING LYMPHOCYTE RESPONSIVENESS TO LOW GRAVITY
 09/09/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: M - LEWIS
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 8 52817 UNIVERSITY OF ALABAMA - UNIVERSITY 1285
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/25/1996 - 05/31/1999 FY98: \$0 Total: \$44,000
Prin. Invest.: J S LANG
Tech. Officer: MSFC/C S CORNELIUS
CASE Category: 49 - ENGINEERING, OTHER

NGT 8 52819 UNIVERSITY OF ALABAMA - UNIVERSITY 1286
"1996 SUMMER FACULTY FELLOWSHIP PROGRAM"
 07/24/1996 - 12/31/1998 FY98: \$669,616 Total: \$1,583,962
Prin. Invest.: L M FREEMAN
Tech. Officer: MSFC/F SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52835 UNIVERSITY OF ALABAMA – UNIVERSITY **1287**
GRADUATE STUDENT RESEARCHERS PROGRAM "FELLOWSHIP FOR
MICHAEL W. TODD"
 11/14/1996 – 08/01/1999 FY98: \$0 Total: \$44,000
Prin. Invest.: M W TODD
Tech. Officer: MSFC/J BILBRO
CASE Category: 46 – MECHANICAL ENGR

NAG13 58 UNIVERSITY OF NORTH ALABAMA **1288**
SMALL SPACECRAFT TECHNOLOGY INITIATIVE SAME
 09/12/1997 – 09/11/1998 FY98: \$0 Total: \$24,876
Prin. Invest.: L KEYS–MATHEWS
Tech. Officer: SSC/V ZANONI
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 1 1911 UNIVERSITY OF SOUTH ALABAMA **1289**
INITIALIZATION AND SIMULATIONS OF THREE-DIMENSIONAL AIRCRAFT
WAKE VORTICES
 03/19/1997 – 01/31/1999 FY98: \$43,279 Total: \$67,000
Prin. Invest.: Z C ZHENG
Tech. Officer: LARC/F H PROCTOR
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1050 UNIVERSITY OF SOUTH ALABAMA **1290**
SMART OPTICAL RAM FOR FAST INFORMATION MANAGEMENT & ANALY-
SIS
 06/06/1996 – 08/31/1998 FY98: \$0 Total: \$249,830
Prin. Invest.: H K LIU
Tech. Officer: ARC/C K GARY
CASE Category: 45 – ELECTRICAL ENGR

NAG 8 1397 UNIVERSITY OF SOUTH ALABAMA **1291**
R/S "DEVELOPMENT OF COUNTERMEASURES & EXERCISE PROTOCOLS
TO REDUCE THE EFFECT OF MICROGRAVITY
 07/23/1997 – 08/31/1998 FY98: \$6,000 Total: \$26,914
Prin. Invest.: P KULKARNI
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

ALASKA

NAG 8 1282 UNIVERSITY OF ALASKA – ANCHORAGE **1292**
RESEARCH JOVE
 01/21/1997 – 08/31/1999 FY98: \$8,369 Total: \$52,369
Prin. Invest.: J A OLOFSSON
Tech. Officer: MSFC/JF DOWDY, MSFC/J R PRUITT
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCCW 42 UNIVERSITY OF ALASKA – ANCHORAGE **1293**
ALASKA TECHNOLOGY TRANSFER ASSISTANCE CENTER
 06/28/1994 – 06/30/1998 FY98: \$0 Total: \$321,000
Prin. Invest.: J FREDERICKS
Tech. Officer: HQ/J ROOT
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30039 UNIVERSITY OF ALASKA – ANCHORAGE **1294**
SHALLOW LAKE PROCESSES AND METHANE FLUX TO THE ATM
BREAK-UP OF HIGH LATITUDE LAKES
 10/17/1996 – 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: K PETERSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 1097 UNIVERSITY OF ALASKA – FAIRBANKS **1295**
ATMOSPHERE IONOSPHERE MAGNETOSPHERE SYSTEM
 11/01/1988 – 03/31/1998 FY98: \$0 Total: \$1,315,000
Prin. Invest.: M H REES
Tech. Officer: GSFC/S A CURTIS, GSFC/M H ACUNA
CASE Category: 13 – PHYSICS

NAG 5 1504 UNIVERSITY OF ALASKA – FAIRBANKS **1296**
A STUDY OF SOLAR WIND-MAGNETOSPHERE INTERACTION AT THE DAY-
SIDE AND NIGHTSIDE MAGNETOPAUSE
 03/19/1991 – 11/30/1997 FY98: \$0 Total: \$1,224,941
Prin. Invest.: L C LEE
Tech. Officer: GSFC/T J BIRMINGHAM
CASE Category: 13 – PHYSICS

NAG 5 3582 UNIVERSITY OF ALASKA – FAIRBANKS **1297**
FAST CONJUGATE AIRCRAFT OBSERVATIONS
 11/15/1996 – 11/14/1998 FY98: \$0 Total: \$321,403
Prin. Invest.: H STENBAEK-NIELSEN, T J HALLINAN
Tech. Officer: GSFC/R F PFAFF, JR.
CASE Category: 13 – PHYSICS

NAG 5 4068 UNIVERSITY OF ALASKA – FAIRBANKS **1298**
SAR, INTERFEROMETRY, AND GLACIER DYNAMICS IN NW NORTH
 03/20/1997 – 02/28/1999 FY98: \$102,093 Total: \$189,380
Prin. Invest.: C LINGLE
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4170 UNIVERSITY OF ALASKA – FAIRBANKS **1299**
CLIMATE SENSITIVITY OF THAW LAKE SYSTEMS
 03/27/1997 – 12/31/1998 FY98: \$39,912 Total: \$80,547
Prin. Invest.: D JEFFRIES
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4269 UNIVERSITY OF ALASKA – FAIRBANKS **1300**
UNIQUE SIMULTANEOUS OBSERVATIONS OF THE CONJUGATE HEMI-
SPHERES WITH THE DYNAMICS EXPLORER AND VIKING
 03/25/1997 – 05/14/1999 FY98: \$15,532 Total: \$48,529
Prin. Invest.: D CRAVEN
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 – PHYSICS

NAG 5 4369 UNIVERSITY OF ALASKA – FAIRBANKS **1301**
DEFORMATION OF ALASKAN VOLCANOES MEASURED BY RADAR
 05/14/1997 – 04/30/1999 FY98: \$39,854 Total: \$79,918
Prin. Invest.: D FREYMUELLER
Tech. Officer: GSFC/S P GOGINENI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4517 UNIVERSITY OF ALASKA - FAIRBANKS **1302**
OPTICAL SATELLITE REMOTE SENSING OF FOREST CANOPY THE SUB-ARCTIC LANDSCAPE
 07/03/1997 - 06/30/1998 FY98: \$0 Total: \$29,146
Prin. Invest.: D L VERBYLA
Tech. Officer: GSFC/D K HALL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4981 UNIVERSITY OF ALASKA - FAIRBANKS **1303**
ELEVATION CHANGES, INTERANNUAL VARIABILITY, AND AN DYNAMICS FROM ERS, GEOSTAT AND SEASAT RADA ALTIME
 07/18/1997 - 07/14/1999 FY98: \$85,055 Total: \$193,055
Prin. Invest.: C LINGLE
Tech. Officer: GSFC/S GOGINENI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 5019 UNIVERSITY OF ALASKA - FAIRBANKS **1304**
VIDEO-IMAGING OF IONOSPHERIC-UPPER ATMOSPHERIC OPTICAL FLASHES FROM AIRCRAFT
 03/10/1994 - 12/31/1998 FY98: \$431,097 Total: \$1,891,255
Prin. Invest.: D D SENTMAN
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5097 UNIVERSITY OF ALASKA - FAIRBANKS **1305**
A CO-INVESTIGATOR PROPOSAL FOR THE CORNELL UNIVERSITY CAPER
 12/20/1996 - 06/30/1999 FY98: -\$60,350 Total: \$91,599
Prin. Invest.: C DEEHR
Tech. Officer: GSFC/W GURKIN
CASE Category: 13 - PHYSICS

NAG 5 5125 UNIVERSITY OF ALASKA - FAIRBANKS **1306**
GROUND AND BALLOON-BORNE OBSERVATIONS OF RED SPRITES AND BLUE JETS
 07/02/1997 - 01/31/1999 FY98: \$150,492 Total: \$167,390
Prin. Invest.: E WESTCOTT
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5153 UNIVERSITY OF ALASKA - FAIRBANKS **1307**
AURORAL AIRCRAFT OBSERVATIONS CONJUGATE TO FAST FUNDING FOR BASIC GRANT
 01/14/1998 - 01/31/1999 FY98: \$270,950 Total: \$270,950
Prin. Invest.: H NIELSEN
Tech. Officer: GSFC/W JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6219 UNIVERSITY OF ALASKA - FAIRBANKS **1308**
PLASMA STRUCTURE AND PROCESSES AT THE MAGNETOSPHERE
 09/11/1997 - 05/14/1999 FY98: \$22,909 Total: \$72,909
Prin. Invest.: D OTTO
Tech. Officer: HQ/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6275 UNIVERSITY OF ALASKA - FAIRBANKS **1309**
THE ROLE OF LAND-COVER CHANGE IN HIGH LATITUDE ECO FOR THE GLOBAL CARBON CYCLE
 08/27/1997 - 02/14/2000 FY98: \$170,625 Total: \$463,125
Prin. Invest.: D MCGUIRE
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6334 UNIVERSITY OF ALASKA - FAIRBANKS **1310**
VALIDATION OF MODIS SNOW & SEA ICE PRODUCTS IN THE SOUTHERN OCEAN
 10/02/1997 - 09/30/1999 FY98: \$218,587 Total: \$218,587
Prin. Invest.: S LI, NONE
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6591 UNIVERSITY OF ALASKA - FAIRBANKS **1311**
ARCTIC-BOREAL CLIMATE FEEDBACKS: SYNTHESIS OF INFORMATION FROM INTEGRATED RESEARCH PROGRAM
 11/07/1997 - 11/14/1998 FY98: \$37,500 Total: \$37,500
Prin. Invest.: D CHAPIN, II
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6974 UNIVERSITY OF ALASKA - FAIRBANKS **1312**
COMBINED EFFECTS OF PHOTOELECTRONS, FIELD-ALIGNED CURRENTS, PRECIPITATION, THE Ponderomotive and
 03/31/1998 - 03/31/2001 FY98: \$46,134 Total: \$46,134
Prin. Invest.: G V KHAZANOV
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7251 UNIVERSITY OF ALASKA - FAIRBANKS **1313**
MODELING OF THE ATMOSPHERIC-IONOSPHERE-MAGNETOSPHERIC SYSTEM (NAMI)
 04/14/1998 - 10/14/1998 FY98: \$75,000 Total: \$75,000
Prin. Invest.: M H REES
Tech. Officer: GSFC/S CURTIS
CASE Category: 13 - PHYSICS

NAG 5 7291 UNIVERSITY OF ALASKA - FAIRBANKS **1314**
RADARSAT IN SUPPORT OF THE ANTARCTIC COASTAL POLYNIA PILOT STUDY
 04/24/1998 - 03/31/1999 FY98: \$40,493 Total: \$40,493
Prin. Invest.: M O JEFFRIES
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7501 UNIVERSITY OF ALASKA - FAIRBANKS **1315**
JERS-1 NORTHERN AMERICAN BOREAL FOREST MAPPING STUDY TASK PLAN UAF COMPONENT
 06/26/1998 - 06/30/2001 FY98: \$55,000 Total: \$55,000
Prin. Invest.: C L WILLIAMS
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7601 UNIVERSITY OF ALASKA - FAIRBANKS **1316**
THE INFLUENCE OF PROPAGATING EDDIES ON THE ENVIRONMENT OF THE CONTINENTAL SHELF IN THE NORTHERN G
 07/21/1998 - 07/31/2002 FY98: \$13,500 Total: \$13,500
Prin. Invest.: S R OKKONEN
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7659 UNIVERSITY OF ALASKA - FAIRBANKS 1317
'SPACE GEODETIC CASE STUDIES OF RECENT VOLCANIC EV ENTS IN ALASKA'S ENH98-0028
 09/09/1998 - 02/28/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: J T FREYMUELLER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7683 UNIVERSITY OF ALASKA - FAIRBANKS 1318
MODELING OF THE ATMOSPHERE-MAGNETOSPHERE-IONOSPHERE SYSTEM: BASELINE EFFORT
 09/15/1998 - 09/30/1999 FY98: \$97,504 Total: \$97,504
Prin. Invest.: M H REES
Tech. Officer: GSFC/S A CURTIS
CASE Category: 13 - PHYSICS

NAGW 3727 UNIVERSITY OF ALASKA - FAIRBANKS 1319
ELEVATION CHANGES OF MOUNTAIN GLACIERS AS MEASURED BY AIRBORNE LASER ALTIMETRY
 09/10/1993 - 08/31/1997 FY98: \$0 Total: \$533,528
Prin. Invest.: W D HARRISON, K A ECHELMAYER
Tech. Officer: HQ/R H THOMAS, HQ/R A SCHIFFER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4371 UNIVERSITY OF ALASKA - FAIRBANKS 1320
ELEVATION CHANGES, INTERANNUAL VARIABILITY, AND ANTARCTIC ICE SHEETS DYNAMICS FROM ERS, GEOSAT
 03/31/1995 - 01/31/1998 FY98: \$0 Total: \$214,112
Prin. Invest.: C S LINGLE
Tech. Officer: HQ/R H THOMAS, HQ/M BALTUCK
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4966 UNIVERSITY OF ALASKA - FAIRBANKS 1321
CLIMATE SENSITIVITY OF THAW LAKE SYSTEMS ON THE ALASKAN NORTH SLOPE
 02/24/1996 - 09/30/1997 FY98: \$0 Total: \$86,024
Prin. Invest.: M JEFFRIES, T ZHANG
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4969 UNIVERSITY OF ALASKA - FAIRBANKS 1322
RADARSAT IN SUPPORT OF THE ANTARCTIC COASTAL POLYNIA PILOT STUDY
 02/27/1996 - 03/31/1998 FY98: \$0 Total: \$39,262
Prin. Invest.: M JEFFRIES, V LYTLE
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 33 - OCEANOGRAPHY

NAGW 5077 UNIVERSITY OF ALASKA - FAIRBANKS 1323
DEFORMATIONS OF ALASKA VOLCANOES MEASURED BY SATELLITE RADAR INTERFEROMETRY
 05/29/1996 - 04/30/1997 FY98: \$0 Total: \$40,464
Prin. Invest.: F FREYMUELLER, M WYSS, K DEAN
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 5205 UNIVERSITY OF ALASKA - FAIRBANKS 1324
TEMPORAL AND SPATIAL SYNOPTIC VARIANCE OF SEA ICE IN THE RUSSIAN ARCTIC AND THE CAUSATIVE PROCESSES
 10/03/1996 - 07/31/1998 FY98: \$0 Total: \$45,078
Prin. Invest.: D L JOHNSON
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 33 - OCEANOGRAPHY

NAS 3 26401 UNIVERSITY OF ALASKA - FAIRBANKS 1325
ACTS PROPAGATION EXPERIMENTS IN ALASKA
 05/24/1993 - 04/30/1999 FY98: \$129,171 Total: \$779,791
Prin. Invest.: C E MAYER
Tech. Officer: LERC/R J GUNDERMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 5 32206 UNIVERSITY OF ALASKA - FAIRBANKS 1326
MAINTENANCE/MISSION SUPPORT OF POKER FLAT RESEARCH RANGE
 10/31/1994 - 10/31/1999 FY98: \$701,000 Total: \$6,489,298
Prin. Invest.: S SCHWATAL
Tech. Officer: GSFC/M J FILLIS, GSFC/B J FLOWERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 32393 UNIVERSITY OF ALASKA - FAIRBANKS 1327
OPERATION & MANAGEMENT OF ALASKA SYNTHETIC APERTURE RADAR FACILITY
 04/01/1993 - 04/01/1998 FY98: -\$112,466 Total: \$26,223,334
Prin. Invest.: G WELLER
Tech. Officer: GSFC/G HUNOLT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 97133 UNIVERSITY OF ALASKA - FAIRBANKS 1328
HIGH-LATITUDE INTERCOMPARISON & VALIDATION EXPERIMENT
 09/15/1997 - 09/14/1998 FY98: \$0 Total: \$185,004
Prin. Invest.: D L ESLINGER
Tech. Officer: GSFC/C MCCLAIN, GSFC/D ENDERS
CASE Category: 33 - OCEANOGRAPHY

NAS 5 97138 UNIVERSITY OF ALASKA - FAIRBANKS 1329
RESEARCH—NUMERICAL RADIATIVE TRANSFER MODELING EXPERIMENTS & ASSOC. ANALYSES
 09/23/1997 - 09/22/1999 FY98: \$23,000 Total: \$173,001
Prin. Invest.: K STAMNES
Tech. Officer: GSFC/C MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NAS 5 97139 UNIVERSITY OF ALASKA - FAIRBANKS 1330
RESEARCH—ATMOSPHERIC CORRECTION ALGORITHMS FOR OCEAN COLOR REMOTE SENSING
 09/23/1997 - 09/22/1999 FY98: \$23,000 Total: \$123,000
Prin. Invest.: K STAMNES
Tech. Officer: GSFC/C MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NAS 5 98129 UNIVERSITY OF ALASKA - FAIRBANKS 1331
OPERATION & MANAGEMENT OF ALASKA SAR FACILITY
 03/30/1998 - 03/31/2003 FY98: \$5,319,496 Total: \$5,319,496
Prin. Invest.: N AVAILBLE
Tech. Officer: GSFC/P J ONDRUS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCA 5 112 UNIVERSITY OF ALASKA - FAIRBANKS **1332**
PROCESSING SYNTHETIC APERTURE RADAR DATA
 04/27/1988 - 02/28/1999 FY98: \$1,829,416 Total: \$19,710,886
Prin. Invest.: J MILLER, W F WEEKS, G WELLER
Tech. Officer: GSFC/G H TROFFORD
CASE Category: 11 - ASTRONOMY

NCC 5 75 UNIVERSITY OF ALASKA - FAIRBANKS **1333**
MODIS/SNOW MAPPING: IN-SITU MEASUREMENTS ON THE SNOW OF INTERIOR AND ARCTIC ALASKA
 07/11/1994 - 09/30/1997 FY98: \$0 Total: \$70,000
Prin. Invest.: C BENSON
Tech. Officer: GSFC/D HALL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 89 UNIVERSITY OF ALASKA - FAIRBANKS **1334**
POSTSEISMIC DEFORMATION AFTER THE 1964 GREAT ALASKAN EARTHQUAKE: COLLABORATIVE RESEARCH WITH GODD.
 05/05/1995 - 09/30/1998 FY98: \$16,860 Total: \$60,036
Prin. Invest.: J FREYMUELLER, M WYSS
Tech. Officer: GSFC/S C COHEN
CASE Category: 32 - GEOLOGICAL SCIENCE

NCC 5 213 UNIVERSITY OF ALASKA - FAIRBANKS **1335**
MODIS/SNOW MAPPING: IN-SITU MEASUREMENTS ON THE SNOW AND ARCTIC ALASKA
 06/27/1997 - 09/30/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: C BENSON, NONE
Tech. Officer: GSFC/D HALL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 327 UNIVERSITY OF ALASKA - FAIRBANKS **1336**
CONDUCT RESEARCH IN THE ROLE OF SUPERHEATED ELECTRONS IN THE DYNAMICS OF HIGH LATITUDE IONOSPHERIC OSCILLATIONS
 04/24/1998 - 04/30/1999 FY98: \$24,996 Total: \$24,996
Prin. Invest.: G V KHAZANOV
Tech. Officer: GSFC/B L GILES
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 5 40014 UNIVERSITY OF ALASKA - FAIRBANKS **1337**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM
 02/10/1997 - 02/28/1999 FY98: \$212,500 Total: \$382,500
Prin. Invest.: J G HAWKINS
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50191 UNIVERSITY OF ALASKA - FAIRBANKS **1338**
TIME-DEPENDENT TRANSPORT OF AURORAL ELECTRONS AND SMALL SCALE AURORAL ARCS/STUDENT: LAURA PETICOLA
 06/05/1998 - 06/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: D LUMMERZHEIM
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 - PHYSICS

NAG 5 7629 UNIVERSITY OF NORTH CAROLINA AT WILMINGTON **1339**
REMOTE SENSING AND MARINE ECOLOGY AT THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON
 08/28/1998 - 07/31/1999 FY98: \$29,580 Total: \$29,580
Prin. Invest.: S D EMSLIE
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

ARIZONA

NAG 1 1082 ARIZONA STATE UNIVERSITY **1340**
ADVANCED ELECTROMAGNETIC METHODS FOR AEROSPACE VEHICLES
 12/15/1989 - 12/31/1998 FY98: \$19,264 Total: \$740,900
Prin. Invest.: C A BALANIS
Tech. Officer: LARC/G C BARBER, LARC/T G CAMPBELL
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1648 ARIZONA STATE UNIVERSITY **1341**
MODELING AND ANALYSIS OF COMPOSITE WING SECTIONS FOR IMPROVED AEROELASTIC AND VIBRATION
 10/28/1994 - 06/30/1998 FY98: -\$1,655 Total: \$88,345
Prin. Invest.: A CHATTOPADHYAY
Tech. Officer: LARC/J HEEG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1781 ARIZONA STATE UNIVERSITY **1342**
PENETRATION OF HIGH-INTENSITY RADIATED FIELDS INTO GENERAL AVIATION AIRCRAFT
 12/13/1995 - 12/07/1998 FY98: \$119,999 Total: \$377,095
Prin. Invest.: C BALANIS, P TIRKAS
Tech. Officer: LARC/K J MOELLER
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1886 ARIZONA STATE UNIVERSITY **1343**
STABILITY OF HYPERSONIC BOUNDARY-LAYER FLOWS
 01/30/1997 - 12/31/1997 FY98: \$0 Total: \$25,000
Prin. Invest.: H L REED
Tech. Officer: LARC/R A THOMPSON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1925 ARIZONA STATE UNIVERSITY **1344**
SWEPT-WING RECEPTIVITY STUDIES USING DISTRIBUTED ROUGHNESS
 05/13/1997 - 10/31/1998 FY98: \$94,574 Total: \$144,284
Prin. Invest.: N S SARIC
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1988 ARIZONA STATE UNIVERSITY **1345**
DEVELOPMENT OF COMPREHENSIVE MODELING TECHNIQUES FOR SMART COMPOSITE STRUCTURES
 01/06/1998 - 01/14/1999 FY98: \$42,000 Total: \$42,000
Prin. Invest.: A CHATTOPADHYAY
Tech. Officer: LARC/C D WIESEMAN, LARC/A R MCGOWAN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 908 ARIZONA STATE UNIVERSITY **1346**
DEVELOPMENT OF A COMPOSITE TAILORING PROCEDURE FOR AIRPLANE WINGS
 06/15/1994 - 09/30/1999 FY98: \$0 Total: \$175,017
Prin. Invest.: A CHATTOPADHYAY
Tech. Officer: ARC/H MIURA, ARC/A SHAHN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 990 ARIZONA STATE UNIVERSITY **1347**
MULTIRESOLUTION & EXPLICIT METHODS FOR VECTOR FIELD ANALYSIS & VISUALIZATION
 07/25/1995 - 06/30/1999 FY98: \$0 Total: \$278,637
Prin. Invest.: S M NIELSON
Tech. Officer: ARC/A VAZIRI, ARC/T A LASINSKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 2081 ARIZONA STATE UNIVERSITY **1348**
DECOUPLING THE ROLE OF INERTIA & GRAVITY ON PARTICLE DISPERSION
 LSN000850-(NRA-94-OLMSA)
 09/26/1997 - 09/14/2000 FY98: \$0 Total: \$8,311
Prin. Invest.: K D SQUIRES
Tech. Officer: LERC/A CHAIT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3004 ARIZONA STATE UNIVERSITY **1349**
STUDIES OF MAGELLANIC CLOUD X-RAY SOURCES USING ROSAT AND
HEOA-2 ARCHIVAL DATA
 07/14/1995 - 09/30/1997 FY98: \$0 Total: \$66,500
Prin. Invest.: A P COWLEY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3286 ARIZONA STATE UNIVERSITY **1350**
INVESTIGATING QPOS IN LMC X-1
 07/03/1996 - 10/31/1998 FY98: \$0 Total: \$26,800
Prin. Invest.: P SCHMIDTKE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3628 ARIZONA STATE UNIVERSITY **1351**
THERMAL-INFRARED LABORATORY STUDIES
 02/25/1997 - 12/31/1998 FY98: \$97,181 Total: \$190,181
Prin. Invest.: D R CHRISTENSEN
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3783 ARIZONA STATE UNIVERSITY **1352**
DETERMINING THE COMPOSITION OF MARTIAN AND VENUSIAN
 02/21/1997 - 12/31/1998 FY98: \$73,000 Total: \$146,000
Prin. Invest.: D FINK
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3892 ARIZONA STATE UNIVERSITY **1353**
THEORETICAL STUDIES OF BINARY SYSTEMS CONTAINING C
 02/11/1997 - 01/14/1999 FY98: \$21,031 Total: \$41,294
Prin. Invest.: M POLITANO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3908 ARIZONA STATE UNIVERSITY **1354**
STUDIES IN PLANETARY VOLCANOLOGY
 02/12/1997 - 02/28/1999 FY98: \$216,758 Total: \$376,758
Prin. Invest.: D GREELEY
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3909 ARIZONA STATE UNIVERSITY **1355**
STUDIES OF MARTIAN AEOLIAN GEOLOGY
 02/12/1997 - 02/28/1999 FY98: \$90,977 Total: \$256,877
Prin. Invest.: R GREELEY
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4131 ARIZONA STATE UNIVERSITY **1356**
ORGANICS IN METEORITES
 03/15/1997 - 03/14/1998 FY98: \$0 Total: \$115,000
Prin. Invest.: D CRONIN
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4156 ARIZONA STATE UNIVERSITY **1357**
WINDBLOWN FEATURES ON VENUS AND GEOLOGIC MAPPING
 04/12/1997 - 04/30/1999 FY98: \$0 Total: \$50,000
Prin. Invest.: D GREELEY
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4232 ARIZONA STATE UNIVERSITY **1358**
GEOLOGY OF ANCIENT VOLCANOS, NORTHERN PLAINS AND POLES ON MARS
 03/24/1997 - 04/30/1998 FY98: \$0 Total: \$70,000
Prin. Invest.: D GREELEY
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4280 ARIZONA STATE UNIVERSITY **1359**
CHEMICAL CONSTRAINTS ON THE EARLY SOLAR NEBULA: MOLECULAR ABUNDANCES IN CLOUDS, DISKS, AND COMETS
 04/30/1997 - 06/30/2000 FY98: \$45,000 Total: \$90,000
Prin. Invest.: D WYCKOFF
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4296 ARIZONA STATE UNIVERSITY **1360**
MARS SURVEYOR LANDING SITE PROPOSAL: SCHIAPARELLI
 04/04/1997 - 03/31/1999 FY98: \$0 Total: \$31,400
Prin. Invest.: M S EDGETT
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4308 ARIZONA STATE UNIVERSITY **1361**
FINE-GRAINED MINERALS IN PRIMITIVE CHONDRITES: NEBULAR PROCESSING
 04/16/1997 - 02/14/1999 FY98: \$91,375 Total: \$186,391
Prin. Invest.: P R BUSECK
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4439 ARIZONA STATE UNIVERSITY **1362**
MARS SURVEYOR PROGRAM LANDING SITE STUDY OF THE EL MARS
 04/25/1997 - 03/31/1998 FY98: \$0 Total: \$13,400
Prin. Invest.: D L GRAF
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4532 ARIZONA STATE UNIVERSITY **1363**
LITHOSPHERIC DYNAMICS OF VENUS AND MARS
 05/08/1997 - 05/14/1998 FY98: \$0 Total: \$39,400
Prin. Invest.: D G GRIMM
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4533 ARIZONA STATE UNIVERSITY **1364**
VENUS AEROBOT SURFACE IMAGING SYSTEM (VASSIS)
 05/06/1997 - 05/31/1999 FY98: \$16,000 Total: \$32,000
Prin. Invest.: D GREELEY
Tech. Officer: GSFC/J BOYCE
CASE Category: 99 - MULTI-INTERDISCIPLINARY, OTHER

NAG 5 4860 ARIZONA STATE UNIVERSITY **1365**
FOSSIL RECORD OF PRECAMBRIAN LIFE ON LAND
 06/19/1997 - 05/31/2000 FY98: \$21,367 Total: \$72,647
Prin. Invest.: P KNAUTH
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4892 ARIZONA STATE UNIVERSITY 1366
ORGANIC SYNTHESIS IN ARTIFICIAL SMOKERS
 06/24/1997 - 04/30/1999 FY98: \$34,541 Total: \$114,941
Prin. Invest.: D HOLLOWAY
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 6108 ARIZONA STATE UNIVERSITY 1367
MINERALOGICAL OXIDE AND SULFIDE MINERAL INDICATORS TIVITY
 07/24/1997 - 07/31/1999 FY98: \$0 Total: \$60,000
Prin. Invest.: P R BUSECK
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6740 ARIZONA STATE UNIVERSITY 1368
A SYSTEMATIC STUDY OF GALAXY EVOLUTION WITH ARTIFICIAL NEURAL NETWORKS: A COMBINED ANALYSIS OF ASTR
 12/19/1997 - 12/31/1998 FY98: \$50,156 Total: \$50,156
Prin. Invest.: R WINDHORST
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6741 ARIZONA STATE UNIVERSITY 1369
SYSTEMATIC DETERMINATIONS OF ELEMENTAL ABUNDANCES FOR GALACTIC AND LMC NOVAE
 12/19/1997 - 12/31/1999 FY98: \$128,288 Total: \$128,288
Prin. Invest.: S STARRFIELD
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6831 ARIZONA STATE UNIVERSITY 1370
EVOLUTION OF PHOTOSYNTHESIS
 02/02/1998 - 09/30/1998 FY98: \$75,000 Total: \$75,000
Prin. Invest.: R E BLANKENSHIP
Tech. Officer: GSFC/M MEYER
CASE Category: 11 - ASTRONOMY

NAG 5 7057 ARIZONA STATE UNIVERSITY 1371
CHEMICAL CONSTRAINTS ON EARLY SOLAR NEBULA: TRACING MOLECULAR AND ISOTOPIC ABUNDANCES FROM INTE
 07/30/1998 - 09/15/1998 FY98: \$0 Total: \$0
Prin. Invest.: S WYCKOFF
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7199 ARIZONA STATE UNIVERSITY 1372
SEARCH FOR EXTRA-SOLAR PLANETS FROM SOUTHERN HEMISPHERE
 04/17/1998 - 04/14/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: P A WEHINGER
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7285 ARIZONA STATE UNIVERSITY 1373
MINERALOGY AND MICROSTRUCTURES OF SHOCK-INDUCED METAL VEINS IN CHONDRITES
 04/29/1998 - 04/30/2000 FY98: \$33,333 Total: \$33,333
Prin. Invest.: T G SHARP
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7541 ARIZONA STATE UNIVERSITY 1374
INVESTIGATION OF NEBULAR PROCESSES THROUGH OXYGEN ISOTOPIC ANALYSIS OF PRIMITIVE METEORITE MATERIAL
 06/18/1998 - 03/01/1999 FY98: \$17,558 Total: \$17,558
Prin. Invest.: L LESHIN
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7573 ARIZONA STATE UNIVERSITY 1375
'MONITORING THE HAZARDS OF SILICIC VOLCANOES WITH REMOTE SENSING' (SENH98-0092)
 07/28/1998 - 06/30/1999 FY98: \$24,999 Total: \$24,999
Prin. Invest.: J H FINK
Tech. Officer: GSFC/F V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 8 1353 ARIZONA STATE UNIVERSITY 1376
R/S "CRYSTALLIZATION MECHANISMS OF MEMBRANE PROTEINS UNDER THE DIRECTION OF DR. JAMES ALLEN"
 05/19/1997 - 11/30/2000 FY98: \$125,000 Total: \$215,000
Prin. Invest.: J ALLEN
Tech. Officer: MSFC/C R TALLEY, MSFC/M L PUSEY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 815 ARIZONA STATE UNIVERSITY 1377
DEVELOPE MICROFLOW BIOCHEMICAL SENSORS
 08/07/1995 - 08/30/1999 FY98: \$144,000 Total: \$568,000
Prin. Invest.: B TOWE
Tech. Officer: JSC/N R PELLIS
CASE Category: 49 - ENGINEERING, OTHER

NAGW 943 ARIZONA STATE UNIVERSITY 1378
THERMAL INFRARED SPECTRAL MEASUREMENTS OF GEOLOGIC MATERIAL
 07/15/1986 - 12/31/1996 FY98: \$0 Total: \$613,702
Prin. Invest.: P R CHRISTENSEN
Tech. Officer: HQ/J UNDERWOOD, HQ/J M BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 1391 ARIZONA STATE UNIVERSITY 1379
EVOLUTION OF PHOTOSYNTHESIS
 08/08/1988 - 06/30/1997 FY98: \$0 Total: \$562,445
Prin. Invest.: R E BLANKENSHIP
Tech. Officer: HQ/J D RUMMEL
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 1771 ARIZONA STATE UNIVERSITY 1380
GEOLOGIC MAPPING OF HADRIACA PATERA & TYRRHENA PATERA
 06/21/1989 - 09/30/1997 FY98: -\$559 Total: \$122,995
Prin. Invest.: R GREELEY
Tech. Officer: HQ/J R UNDERWOOD
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 1891 ARIZONA STATE UNIVERSITY 1381
ORGANIC CHEMISTRY OF CARBONACEOUS METEORITES
 10/31/1989 - 03/31/1997 FY98: -\$14,909 Total: \$680,091
Prin. Invest.: J R CRONIN
Tech. Officer: HQ/J D RUMMEL
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 2064 ARIZONA STATE UNIVERSITY **1382**
NAGW-2064/ARIZONA STATE UNIV/STUDIES OF MARTIAN AEOLIAN GEOLOGY
 05/04/1990 – 09/30/1997 FY98: \$0 Total: \$623,474
Prin. Invest.: R GREELEY
Tech. Officer: HQ/T A MAXWELL
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 2102 ARIZONA STATE UNIVERSITY **1383**
GEOLOGICAL STUDIES IN PLANETOLOGY
 05/04/1990 – 09/30/1997 FY98: \$0 Total: \$1,459,699
Prin. Invest.: R GREELEY
Tech. Officer: HQ/T A MAXWELL
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 2241 ARIZONA STATE UNIVERSITY **1384**
NAGW-2241/ARIZONA STATE UNIV/COMETS AS PROBES OF A STAR-FORMING ENVIRONMENT
 05/23/1991 – 02/28/1998 FY98: \$0 Total: \$190,200
Prin. Invest.: S WYCOFF, NONE
Tech. Officer: HQ/J A NUTH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 2622 ARIZONA STATE UNIVERSITY **1385**
NAGW-2622/ARIZONA STATE UNIV/GEOLOGY OF ANCIENT VOLCANOES, NORTHERN PLAINS, & POTENTIAL LANDING SITE
 08/21/1991 – 09/30/1997 FY98: -\$1,741 Total: \$343,259
Prin. Invest.: R GREELEY
Tech. Officer: HQ/W L QUAIDE
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 2949 ARIZONA STATE UNIVERSITY **1386**
MARS ANALOG SITE SELECTION STUDY
 03/04/1992 – 10/01/1997 FY98: \$0 Total: \$200,261
Prin. Invest.: R GREELEY
Tech. Officer: HQ/J M BOYCE
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 2989 ARIZONA STATE UNIVERSITY **1387**
SUBMILLIMETER DIRECT ABSORPTION/BEAM SPECTROSCOPY
 03/24/1992 – 07/31/1997 FY98: \$0 Total: \$336,374
Prin. Invest.: L M ZIURYS, T C STEIMLE
Tech. Officer: HQ/L J CAROFF
CASE Category: 11 – ASTRONOMY

NAGW 3386 ARIZONA STATE UNIVERSITY **1388**
MATRIX MINERALOGY OF CARBONACEOUS CHONDRITE METEORITES
 02/24/1993 – 09/30/1997 FY98: \$0 Total: \$483,719
Prin. Invest.: P R BUSECK
Tech. Officer: HQ/J NUTH
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 4042 ARIZONA STATE UNIVERSITY **1389**
"PLANETARY GEOSCIENCE EDUCATION ACTIVITY"
 06/16/1994 – 09/30/1997 FY98: -\$2,115 Total: \$53,946
Prin. Invest.: R GREELEY
Tech. Officer: HQ/J BOYCE
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 4694 ARIZONA STATE UNIVERSITY **1390**
DEVELOPMENT OF A SMALL INFRARED SPECTROMETER FOR DISCOVERY AND SURVEYOR MISSIONS
 08/11/1995 – 03/31/1997 FY98: \$0 Total: \$376,929
Prin. Invest.: P CHRISTENSEN
Tech. Officer: HQ/T KOSTLUK
CASE Category: 99 – MULTI INTERDISCIPLINARY, OTHER

NAS 5 31371 ARIZONA STATE UNIVERSITY **1391**
EOS INVESTIGATION "ADVANCED SPACEBORNE THERMAL EMISSION AND REFLECTION"
 12/23/1991 – 12/22/2001 FY98: \$242,000 Total: \$1,075,250
Prin. Invest.: P CHRISTENSEN
Tech. Officer: GSFC/H BLODGET
CASE Category: 39 – ENVIRONMENTAL SCIENCE, OTHER

NCC 1 194 ARIZONA STATE UNIVERSITY **1392**
EFFECTS OF SUCTION ON SWEEP-WING TRANSITION
 06/17/1994 – 01/31/1998 FY98: \$0 Total: \$269,938
Prin. Invest.: W S SARIC, M REIBERT, H REED
Tech. Officer: LARC/J R DAGENHART, LARC/M J WALSH
CASE Category: 41 – AERONAUTICAL ENGINEERING

NCC 2 346 ARIZONA STATE UNIVERSITY **1393**
LABORATORY SIMULATIONS OF MARTIAN AND VENUSIAN AEROPROCESSES
 03/01/1985 – 10/31/1998 FY98: \$17,000 Total: \$1,513,686
Prin. Invest.: R GREELEY, J MARSHALL
Tech. Officer: ARC/R M HABERLE, ARC/B F SMITH
CASE Category: 32 – GEOLOGICAL SCIENCE

NCC 2 1051 ARIZONA STATE UNIVERSITY **1394**
EXPLORING THE LIVING UNIVERSE: ORIGIN, EVOLUTION AND DISTRIBUTION OF LIFE IN THE SOLAR SYSTEM
 09/22/1998 – 06/30/2003 FY98: \$335,000 Total: \$335,000
Prin. Invest.: J D FARMER
Tech. Officer: ARC/J N CUZZI
CASE Category: 59 – LIFE SCIENCE, OTHER

NCC 2 5127 ARIZONA STATE UNIVERSITY **1395**
DEVELOPMENT OF CONTINUOUS AND DISCRETE APPROACHES FOR AERODYNAMIC SENSITIVITY ANALYSIS
 05/02/1995 – 04/30/1999 FY98: \$0 Total: \$80,000
Prin. Invest.: A CHATTOPADHYAY, J R NARAYAN
Tech. Officer: ARC/E TU
CASE Category: 46 – MECHANICAL ENGINEERING

NCC 2 5150 ARIZONA STATE UNIVERSITY **1396**
ENHANCED MULTIOBJECTIVE OPTIMIZATION PROCEDURE FOR CFD-BASED DESIGN
 08/09/1995 – 07/14/1997 FY98: -\$4 Total: \$39,996
Prin. Invest.: A CHATTOPADHYAY, J R NARAYAN
Tech. Officer: ARC/E TU
CASE Category: 41 – AERONAUTICAL ENGINEERING

NCC 2 5267 ARIZONA STATE UNIVERSITY **1397**
MODELING & OPTIMIZATION OF ULTRAFAST SEMICONDUCTOR QUANTUM WELL DEVICES
 05/15/1998 – 12/31/1998 FY98: \$100,120 Total: \$100,120
Prin. Invest.: Y H ZHANG
Tech. Officer: ARC/S SAINI
CASE Category: 13 – PHYSICS

NCC 2 5282 ARIZONA STATE UNIVERSITY 1398
AN ENHANCED MULTIOBJECTIVE OPTIMIZATION TECHNIQUE FOR COMPREHENSIVE AEROSPACE DESIGN
 07/23/1998 - 07/14/1999 FY98: \$20,000 Total: \$20,000
Prin. Invest.: A CHATTOPADHYAY
Tech. Officer: ARC/S L LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 30347 ARIZONA STATE UNIVERSITY 1399
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/31/1995 - 10/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: R I DOM
Tech. Officer: HQ/G ASRAR
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 2 52204 ARIZONA STATE UNIVERSITY 1400
A NOVEL METHOD FOR REDUCING ROTOR BLADE-VORTEX INTERACTION NOISE
 09/14/1995 - 07/31/1999 FY98: \$0 Total: \$66,000
Prin. Invest.: V L WELLS, A T GLINKA
Tech. Officer: ARC/F H SCHITZ
CASE Category: 41 - AERONAUTICAL ENGINEERING

NGT 5 22 ARIZONA STATE UNIVERSITY 1401
ADAPTIVE FILTERING FOR HIGHER PIXEL DENSITY IN VOLUME HOLOGRAPHIC DATA STORAGE
 07/15/1996 - 06/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: D COCHRAN
Tech. Officer: GSFC/G A SOFFEN, GSFC/D HOLLIS
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 30007 ARIZONA STATE UNIVERSITY 1402
VARIABILITY OF VOLATILE FLUX FROM VOLCANOES
 10/11/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: S WILLIAMS
Tech. Officer: GSFC/G ASRAR
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 5 30092 ARIZONA STATE UNIVERSITY 1403
GLACIAL CHRONOLOGY OF IZTACCHUATL VOLCANO, CENTRAL ENVIRONMENTAL CHANGE IN THE BORDER OF THE TROPICS
 09/10/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: R I DORN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50077 ARIZONA STATE UNIVERSITY 1404
INVESTIGATION OF AEOLIAN FEATURES USING RADAR DATA TS, & FIELD WORK
 08/26/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: R GREELEY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 21 ARIZONA STATE UNIVERSITY 1405
VESTIBULAR INFO IN EYE HEAD COORDINATION
 05/13/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: R D SEIDLER
Tech. Officer: JSC/D G SICKCOREZ
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 2 6012 NAVAJO COMMUNITY COLLEGE 1406
THE AMERICAN INDIAN NETWORK INFORMATION CENTER
 07/24/1997 - 12/31/1998 FY98: \$66,700 Total: \$266,695
Prin. Invest.: A SAM
Tech. Officer: ARC/L K ALDERETE, ARC/G S LEE
CASE Category: 22 - COMPUTER SCIENCE

NAG 9 968 NAVAJO COMMUNITY COLLEGE 1407
STUDENT MATH & SCIENCE CAREERS INITIATIVES
 09/24/1997 - 09/30/1999 FY98: \$228,976 Total: \$228,976
Prin. Invest.: M C BAUER
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 2 964 NAVAJO COMMUNITY COLLEGE 1408
AFOSR NAVAJO TELECOMMUNICATIONS INFRASTRUCTURE DEVELOPMENT PROJECT
 08/20/1996 - 02/28/1998 FY98: \$0 Total: \$635,000
Prin. Invest.: D BASHAM
Tech. Officer: ARC/R A GRAYMES, ARC/K A SOUZA
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 2 6003 NORTHERN ARIZONA UNIVERSITY 1409
PATHWAYS LEADING TO SUCCESS (PALS)
 08/29/1994 - 08/31/1998 FY98: \$0 Total: \$90,877
Prin. Invest.: G M BOYNE
Tech. Officer: ARC/A R GROSS
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 4357 NORTHERN ARIZONA UNIVERSITY 1410
AN INFRARED SPECTROSCOPIC SURVEY OF ICY GRAINS IN CIRCUMSTELLAR ENVIRONMENTS OF YOUNG STARS
 05/06/1997 - 02/28/1999 FY98: \$13,000 Total: \$30,000
Prin. Invest.: D TEGLER
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4385 NORTHERN ARIZONA UNIVERSITY 1411
RESEARCH IN ORIGINS OF SOLAR SYSTEMS AT NAU
 04/17/1997 - 04/30/1999 FY98: \$0 Total: \$70,080
Prin. Invest.: D L LUTZ
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4852 NORTHERN ARIZONA UNIVERSITY 1412
INFRARED SPECTROSCOPY OF PLANETARY SATELLITES
 07/14/1997 - 04/30/1999 FY98: \$0 Total: \$35,040
Prin. Invest.: D A GRIFFITH
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4942 NORTHERN ARIZONA UNIVERSITY 1413
GIS IN THE CENTRAL VALLES MARINERIS, MARS
 06/23/1997 - 05/31/1999 FY98: \$21,350 Total: \$43,270
Prin. Invest.: D K LUCCHITTA
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4995 NORTHERN ARIZONA UNIVERSITY 1414
MARS FLUIDIZED EJECTA CRATER STUDIES
 07/23/1997 – 07/14/1998 FY98: \$0 Total: \$20,900
Prin. Invest.: D BARNES
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 – ASTRONOMY

NAG 5 6790 NORTHERN ARIZONA UNIVERSITY 1415
INFRARED SPECTROSCOPY OF PLANETARY SATELLITES
 02/10/1998 – 02/14/1999 FY98: \$55,368 Total: \$55,368
Prin. Invest.: C A GRIFFITH
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 – ASTRONOMY

NAG 5 7210 NORTHERN ARIZONA UNIVERSITY 1416
A PHOTOMETRIC SURVEY OF TRANS-NEPTUNIAN OBJECTS
 03/26/1998 – 02/28/1999 FY98: \$28,000 Total: \$28,000
Prin. Invest.: S TEGLER
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAGW 2811 NORTHERN ARIZONA UNIVERSITY 1417
SOLAR SYSTEM SPECTROSCOPY
 01/03/1992 – 04/30/1997 FY98: \$0 Total: \$316,499
Prin. Invest.: B L LUTZ
Tech. Officer: HQ/W L QUAIDE
CASE Category: 11 – ASTRONOMY

NAS 5 96084 NORTHERN ARIZONA UNIVERSITY 1418
RADIOMETRIC CHARACTERIZATION OF THE MOON
 07/12/1996 – 07/11/1998 FY98: -\$20,000 Total: \$264,152
Prin. Invest.: B WILDEY
Tech. Officer: GSFC/J B BUTLER
CASE Category: 11 – ASTRONOMY

NGT 90028 NORTHERN ARIZONA UNIVERSITY 1419
NATIVE AMERICAN SCIENCE AND ENGINEERING ADVANCEMENT PROGRAM
 11/14/1989 – 09/30/1997 FY98: \$0 Total: \$788,387
Prin. Invest.: C N HOLLAND, J GRAY
Tech. Officer: HQ/Y B FREEMAN
CASE Category: 49 – ENGINEERING, OTHER

NGT 5 90080 NORTHERN ARIZONA UNIVERSITY 1420
NATIVE AMERICAN SCIENCE AND ENGINEERING ADVANCEMENT PROGRAM
 02/17/1998 – 12/31/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: G M BOYNE
Tech. Officer: GSFC/P SAKIMOTO
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 2 1207 PRESCOTT COLLEGE 1421
MULTI-YEAR NASA GRANT TO SUPPORT THE OSTP/USGCRP NATIONAL ASSESSMENT PROGRAM
 04/30/1998 – 01/31/1999 FY98: \$400,265 Total: \$400,265
Prin. Invest.: W W ORR
Tech. Officer: ARC/G A SHELTON
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 1 1652 UNIVERSITY OF ARIZONA 1422
DEVELOPMENT OF A METHODOLOGY FOR PREDICTING THE RESIDUAL STRENGTH OF AIRCRAFT STRUCTURES
 12/07/1994 – 09/30/1998 FY98: \$62,631 Total: \$298,565
Prin. Invest.: E MADENCI
Tech. Officer: LARC/J H STARNES, LARC/V O BRITT
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1731 UNIVERSITY OF ARIZONA 1423
ANISOPARAMETRIC NONLINEAR BEAM AND SHELL ELEMENTS MY 1/3
 05/26/1995 – 05/31/1998 FY98: \$33,751 Total: \$116,320
Prin. Invest.: E MADENCI
Tech. Officer: LARC/L TESSLER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1825 UNIVERSITY OF ARIZONA 1424
IN-SITU RESOURCE UTILIZATION FOR ECONOMICAL SPACE MISSIONS – GRANT TRANSFER FROM NASA HQ
 05/20/1996 – 07/31/1998 FY98: \$0 Total: \$67,610
Prin. Invest.: K RAMONHALLI, J LEWIS
Tech. Officer: LARC/J B HALL, JR.
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2023 UNIVERSITY OF ARIZONA 1425
SATELLITE DATA STUDIES OF STRATOSPHERIC OZONE MY 1/3
 03/18/1998 – 02/28/1999 FY98: \$98,714 Total: \$98,714
Prin. Invest.: L L HOOD
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 2041 UNIVERSITY OF ARIZONA 1426
DEVELOPMENT OF ANALYSIS METHODS FOR DESIGNING WITH COMPONENTS
 03/31/1998 – 03/31/1999 FY98: \$75,929 Total: \$75,929
Prin. Invest.: E MADENCI
Tech. Officer: LARC/J H STARNES, LARC/D R AMBUR
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2052 UNIVERSITY OF ARIZONA 1427
BOLTED DOUBLE-LAP JOINTS W/SANDWICH PANELS & LAMINATES UNDER MECH & THERMAL LOADING
 04/08/1998 – 04/07/1999 FY98: \$75,908 Total: \$75,908
Prin. Invest.: E MADENCI
Tech. Officer: LARC/S P WALKER
CASE Category: 46 – MECHANICAL ENGR

NAG 2 906 UNIVERSITY OF ARIZONA 1428
RESEARCH CONCERNING THE NET FLUX OF RADIATION IN THE ATMOSPHERE OF JUPITER
 06/15/1994 – 03/31/1997 FY98: -\$28,206 Total: \$123,589
Prin. Invest.: M G TOMASKO
Tech. Officer: ARC/L E LASHER, ARC/R E YOUNG
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 2 949 UNIVERSITY OF ARIZONA 1429
ENSEMBLE NEURAL CODING OF PLACE & DIRECTION IN ZERO-G
 12/20/1994 – 11/30/1998 FY98: \$250,717 Total: \$1,013,987
Prin. Invest.: B L MCNAUGHTON
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 2 1046 UNIVERSITY OF ARIZONA 1430
THE USE OF COMPOSITE TAILORING FOR OPTIMAL TILE-ROTOR BLADE DESIGN
 05/17/1996 - 09/30/1998 FY98: \$0 Total: \$28,007
Prin. Invest.: P CHATTOPADHYAY
Tech. Officer: ARC/S KOTTAPALLI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1057 UNIVERSITY OF ARIZONA 1431
A2 THZ HETERODYNE ARRAY RECEIVER FOR SOFIA
 07/01/1996 - 01/31/1998 FY98: \$0 Total: \$89,914
Prin. Invest.: C K WALKER
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 2 1090 UNIVERSITY OF ARIZONA 1432
A FAR INFRARED CAMERA FOR SOFIA
 10/25/1996 - 02/28/1999 FY98: \$0 Total: \$116,409
Prin. Invest.: E T YOUNG, G H RIEKE
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 2 1187 UNIVERSITY OF ARIZONA 1433
INFLUENCE OF UNWEIGHTING ON INSULIN SIGNAL TRANSDUCTION IN MUSCLE
 03/18/1998 - 08/31/1998 FY98: \$38,000 Total: \$38,000
Prin. Invest.: M E TISCHLER, E J HENRICKSEN
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1499 UNIVERSITY OF ARIZONA 1434
ADVANCED CONCENTRATOR ARRAY DEVELOPMENT
 06/15/1993 - 11/15/1997 FY98: -\$2 Total: \$199,998
Prin. Invest.: P A FRANKEN, V M ANDREEV
Tech. Officer: LERC/D J FLOOD, LERC/H B CURTIS
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 3 1869 UNIVERSITY OF ARIZONA 1435
AN EXPERIMENTAL STUDY OF RICHTMYER
 05/09/1996 - 05/08/2000 FY98: \$143,000 Total: \$314,000
Prin. Invest.: J JACOBS
Tech. Officer: LERC/A T CHAI
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2154 UNIVERSITY OF ARIZONA 1436
MODELING OF TRANSPORT PROCESSES IN A SOLID OXIDE ELECTROLYZED GENERATING OXYGEN ON MARS
 04/10/1998 - 01/31/2001 FY98: \$50,000 Total: \$50,000
Prin. Invest.: K R SRIDHAR
Tech. Officer: LERC/J S LING, LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 5 637 UNIVERSITY OF ARIZONA 1437
EUV SPECTRAL IMAGER
 07/11/1986 - 12/31/1998 FY98: \$150,000 Total: \$1,261,282
Prin. Invest.: A L BROADFOOT
Tech. Officer: GSFC/L JEARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 1491 UNIVERSITY OF ARIZONA 1438
INVESTIGATION OF BACKSCATTERED ALBEDOS AS MEASURED BY THE TOMS INSTRUMENT
 03/13/1991 - 09/30/1998 FY98: \$120,153 Total: \$836,176
Prin. Invest.: B M HERMAN
Tech. Officer: GSFC/R D MCPETERS, GSFC/R S STOLARSKI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 225 UNIVERSITY OF ARIZONA 1439
THE PHYSICAL FOUNDATIONS OF PARTICLE ACCELERATION BY COLLISIONLESS SHOCKS IN SPACE
 04/27/1993 - 04/30/1999 FY98: \$85,001 Total: \$472,426
Prin. Invest.: J R JOKIPII
Tech. Officer: GSFC/J M GREBOWSKY, GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 2261 UNIVERSITY OF ARIZONA 1440
TEMPERATURE AND COMPOSITION OF A UNIQUE HOT DOW WHITE DWARF & TEMP. & COMP. OF WHITE DWARFS
 05/07/1993 - 08/31/1997 FY98: \$0 Total: \$172,853
Prin. Invest.: J B HOLBERG
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 2311 UNIVERSITY OF ARIZONA 1441
INCORPORATION OF BOREAL FOREST ECOSYSTEM DESCRIPTION INTO CLIMATE MODELING FRAMEWORK
 07/12/1993 - 07/14/1997 FY98: \$0 Total: \$160,000
Prin. Invest.: R E DICKINSON
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2361 UNIVERSITY OF ARIZONA 1442
STUDIES IN SUPPORT OF REMOTE SENSING GAMMA-RAY
 09/22/1993 - 09/30/1997 FY98: \$0 Total: \$35,082
Prin. Invest.: W V BOYNTON
Tech. Officer: GSFC/J I TROMBKA
CASE Category: 11 - ASTRONOMY

NAG 5 2631 UNIVERSITY OF ARIZONA 1443
EUV OBSERVATIONS OF MAGNETOSPHERIC PHENOMENA ASSOCIATED WITH THE COMETARY IMPACT ON JUPITER
 06/28/1994 - 06/30/1997 FY98: \$0 Total: \$24,800
Prin. Invest.: F L HERBERT
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 2641 UNIVERSITY OF ARIZONA 1444
INTEGRATED 12 MICRON EMISSION FROM DWARF SPHEROIDAL GALAXIES
 07/05/1994 - 07/14/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: E W OLSZEWSKI
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2731 UNIVERSITY OF ARIZONA 1445
HIGH SIGNAL-TO-NOISE ECHELLE IUE SPECTRA OF WHITE DWARFS & CONTINUED OPERATION FOR UVS ARCHIVE
 09/30/1994 - 02/28/1998 FY98: \$0 Total: \$166,331
Prin. Invest.: J B HOLBERG
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2798 UNIVERSITY OF ARIZONA **1446**
PHYSICS OF SUPERNOVAE
 11/21/1994 – 08/31/1998 FY98: \$0 Total: \$472,625
Prin. Invest.: W D ARNETT
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 2817 UNIVERSITY OF ARIZONA **1447**
AN INTEGRATED STUDY OF M DWARFS AND BROWN DWARFS
 12/08/1994 – 12/14/1998 FY98: \$0 Total: \$300,000
Prin. Invest.: A S BURROWS
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 2901 UNIVERSITY OF ARIZONA **1448**
THE CORONAE OF LOW MASS DWARF STARS
 03/02/1995 – 12/31/1997 FY98: \$0 Total: \$12,552
Prin. Invest.: J W LIEBERT
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 2962 UNIVERSITY OF ARIZONA **1449**
X-RAY SPECTRUM OF THE HIGH REDSHIFT QUASAR B1422+ 23
 06/09/1995 – 06/14/1999 FY98: \$0 Total: \$54,941
Prin. Invest.: J BECHTOLD
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3018 UNIVERSITY OF ARIZONA **1450**
ORIGIN AND SIGNIFICANCE OF THE EOCENE ROCKY MOUNTAIN EROSION SURFACE
 07/21/1995 – 07/31/1999 FY98: \$0 Total: \$185,951
Prin. Invest.: C G CHASE
Tech. Officer: GSFC/H V FREY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 3042 UNIVERSITY OF ARIZONA **1451**
HUBBLE SPACE TELESCOPE (HST) NEAR-INFRARED CAMERA AND MULTI-OBJECT SPECTROMETER(NICMOS) GUARANTEED..
 08/03/1995 – 12/14/1998 FY98: \$3,456,276 Total: \$11,243,370
Prin. Invest.: D I THOMPSON
Tech. Officer: GSFC/E O RUITBERG
CASE Category: 11 – ASTRONOMY

NAG 5 3068 UNIVERSITY OF ARIZONA **1452**
STUDIES OF CLASSICAL NOVAE: CONFRONTATION OF THEORY WITH OBSERVATIONS
 09/05/1995 – 09/14/1999 FY98: \$0 Total: \$85,749
Prin. Invest.: S G STARRFIELD
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3075 UNIVERSITY OF ARIZONA **1453**
HIGH-ENERGY SPECTRAL CHARACTERISTICS OF GALACTIC BLACK HOLE SYSTEMS
 09/25/1995 – 09/30/1998 FY98: \$65,000 Total: \$195,000
Prin. Invest.: F MELLA
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3238 UNIVERSITY OF ARIZONA **1454**
X-RAY STUDIES OF THE NEARBY STARS
 05/28/1996 – 05/31/1999 FY98: \$0 Total: \$214,600
Prin. Invest.: D FLEMMING
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3323 UNIVERSITY OF ARIZONA **1455**
DEVELOPMENT OF A METROLOGY CELL TO TEST ULTRA-LIGHT WEIGHT SHELL MIRRORS
 07/29/1996 – 02/14/1999 FY98: \$0 Total: \$50,036
Prin. Invest.: R ANGEL
Tech. Officer: GSFC/B SEERY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 3359 UNIVERSITY OF ARIZONA **1456**
ISO DATA REDUCTION AND ANALYSIS
 08/28/1996 – 04/30/1999 FY98: \$338,802 Total: \$592,700
Prin. Invest.: M RIEKE
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3436 UNIVERSITY OF ARIZONA **1457**
ABSOLUTE RADIOMETRIC CALIBRATION AND ATMOSPHERIC CORRECTION OF LANDSAT-7 THEMATIC MAPPER.
 10/07/1996 – 10/31/1998 FY98: \$170,272 Total: \$326,862
Prin. Invest.: C J THOME
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3472 UNIVERSITY OF ARIZONA **1458**
THE ANALYSIS OF IUE NEWSIPS ECHELLE DATA ON WHITE
 10/31/1996 – 10/31/1998 FY98: \$47,500 Total: \$95,000
Prin. Invest.: J B HOLBERG
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3492 UNIVERSITY OF ARIZONA **1459**
"REMOTE SENSING SOIL MOISTURE USING FOUR DIMENSION
 12/02/1996 – 03/31/1999 FY98: \$0 Total: \$157,999
Prin. Invest.: J SHUTTLEWORTH
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3630 UNIVERSITY OF ARIZONA **1460**
PLANETARY GEOMORPHOLOGY
 02/12/1997 – 09/30/1998 FY98: \$36,251 Total: \$71,251
Prin. Invest.: V R BAKER
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3631 UNIVERSITY OF ARIZONA **1461**
PLANET FORMATION AND EVOLUTION: COLLISIONAL AND
 02/12/1997 – 09/30/1998 FY98: \$86,200 Total: \$172,400
Prin. Invest.: R GREENBERG
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3632 UNIVERSITY OF ARIZONA 1462
COPERNICAN CRATERS AND THE PHANEROZOIC IMPACT FLUX
 02/12/1997 - 01/31/1999 FY98: \$42,900 Total: \$83,800
Prin. Invest.: A MCEWEN
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3640 UNIVERSITY OF ARIZONA 1463
UTILIZATION OF EOS DATA IN QUANTIFYING THE PROCESS HYDROLOGIC CYCLE IN ARID/SEMI-ARID REGIONS
 02/12/1997 - 03/31/1999 FY98: \$747,048 Total: \$1,347,145
Prin. Invest.: S SOROOSHAIN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3643 UNIVERSITY OF ARIZONA 1464
PLANETARY AERONOMY AND RELATED STUDIES
 02/25/1997 - 04/30/1998 FY98: \$0 Total: \$60,000
Prin. Invest.: D M HUNTEN
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3691 UNIVERSITY OF ARIZONA 1465
MULTIWAVELENGTH STUDY OF HIGH REDSHIFT QUASARS
 01/24/1997 - 01/31/1998 FY98: \$0 Total: \$22,800
Prin. Invest.: J BECHTOLD
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3777 UNIVERSITY OF ARIZONA 1466
STUDIES OF MIDDLE ATMOSPHERIC RADIATIVE, PHOTOCHEM PROCESSES USING SATELLITE DATA
 02/13/1997 - 02/28/1998 FY98: \$0 Total: \$75,798
Prin. Invest.: L L HOOD
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3785 UNIVERSITY OF ARIZONA 1467
SUB-MILLIMETER SPECTROSCOPY OF ASTROPHYSICALLY-IMP G MOLECULES
 03/28/1997 - 02/28/1999 FY98: \$56,000 Total: \$140,000
Prin. Invest.: D M ZIURYS
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 3791 UNIVERSITY OF ARIZONA 1468
A STUDY OF DUST JET EVOLUTION IN COMET HALLEY
 03/07/1997 - 02/28/1999 FY98: \$31,285 Total: \$62,570
Prin. Invest.: M M LARSON
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3796 UNIVERSITY OF ARIZONA 1469
RELATIVE ABUNDANCES OF 13C, 18O, 15N AND 2H ON TITANIUM MEASUREMENTS AND REFLECTANCE SPECTROSCOPY
 03/11/1997 - 03/14/1999 FY98: \$85,100 Total: \$170,200
Prin. Invest.: D H BROWN
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3837 UNIVERSITY OF ARIZONA 1470
IN-SITU RESOURCE UTILIZATION FOR ECONOMICAL SPACE
 02/19/1997 - 12/31/1998 FY98: \$0 Total: \$36,527
Prin. Invest.: K RAMOHALLI
Tech. Officer: GSFC/R AVANT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3851 UNIVERSITY OF ARIZONA 1471
THE AGGREGATE REPRESENTATION OF TERRESTRIAL LAND CLIMATE MODELS
 12/20/1996 - 06/30/1999 FY98: \$152,351 Total: \$458,960
Prin. Invest.: W SHUTTLEWORTH
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3911 UNIVERSITY OF ARIZONA 1472
SUPPORT FOR THE SPACE IMAGERY CENTER
 02/21/1997 - 09/30/1998 FY98: \$18,801 Total: \$43,801
Prin. Invest.: R G STROM
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3937 UNIVERSITY OF ARIZONA 1473
PLANETARY SPECTROSCOPY
 03/26/1997 - 11/30/1998 FY98: \$130,000 Total: \$218,000
Prin. Invest.: D FINK
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 3938 UNIVERSITY OF ARIZONA 1474
BEGINNING RESEARCH WITH THE 1.8-METER SPACEWATCH T
 03/10/1997 - 11/30/1998 FY98: \$129,675 Total: \$387,660
Prin. Invest.: D GEHRELS
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 4001 UNIVERSITY OF ARIZONA 1475
RAPID IDENTIFICATION OF PLANETARY RESOURCES FROM S
 03/06/1997 - 02/28/1999 FY98: \$118,000 Total: \$245,000
Prin. Invest.: D MERENYI
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4041 UNIVERSITY OF ARIZONA 1476
COUPLED PHYSICAL AND CHEMICAL EVOLUTION OF THE SOL
 02/27/1997 - 01/31/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: D I LUNINE
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4042 UNIVERSITY OF ARIZONA 1477
STABILIZATION OF CCD QUANTUM EFFICIENCY IN THE ULT
 04/07/1997 - 03/14/1999 FY98: \$91,700 Total: \$181,648
Prin. Invest.: D P LESSER
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4049 UNIVERSITY OF ARIZONA **1478**
STUDIES OF COMETS AND NEAS
 02/25/1997 – 02/28/1999 FY98: \$138,425 Total: \$263,250
Prin. Invest.: S M LARSON
Tech. Officer: GSFC/J BERGSTALH
CASE Category: 11 – ASTRONOMY

NAG 5 4051 UNIVERSITY OF ARIZONA **1479**
THEORETICAL STUDIES OF VOLATILE PROCESSES IN THE A SURFACES OF OUTER SOLAR SYSTEM BODIES
 02/25/1997 – 01/31/1999 FY98: \$60,000 Total: \$120,000
Prin. Invest.: J I LUNINE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4054 UNIVERSITY OF ARIZONA **1480**
GAMMA-RAY REMOTE SENSING AND IN-SITU SPECTROSCOPY EXPLORATION MISSION (PIDDP)
 03/11/1997 – 03/14/1998 FY98: \$0 Total: \$15,000
Prin. Invest.: W V BOYNTON
Tech. Officer: GSFC/J I TROMBKA
CASE Category: 13 – PHYSICS

NAG 5 4084 UNIVERSITY OF ARIZONA **1481**
GEOCHEMICAL EVOLUTION OF THE EARTH, MOON, IGNEOUS TERRESTRIAL PLANETARY BODIES
 03/10/1997 – 12/31/1999 FY98: \$220,000 Total: \$440,000
Prin. Invest.: D J DRAKE
Tech. Officer: HQ/J BOYCE
CASE Category: 12 – CHEMISTRY

NAG 5 4107 UNIVERSITY OF ARIZONA **1482**
IMPROVED DATA UTILIZATION FROM PIXELATED CDZNT DE GAMMA-RAY ASTRONOMY
 04/24/1997 – 12/14/1998 FY98: \$0 Total: \$29,927
Prin. Invest.: H BARBER
Tech. Officer: HQ/J TUELLER
CASE Category: 11 – ASTRONOMY

NAG 5 4124 UNIVERSITY OF ARIZONA **1483**
SAR INVESTIGATIONS OF LATE PLEISTOCENE PALEOFLOODS PALEOCлимATES IN CENTRAL ASIA
 03/05/1997 – 01/31/1999 FY98: \$59,643 Total: \$114,642
Prin. Invest.: V R BAKER
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4142 UNIVERSITY OF ARIZONA **1484**
INFRARED EMISSION SPECTROSCOPY OF ASTROPHYSICAL MO
 04/22/1997 – 03/31/1999 FY98: \$43,750 Total: \$118,750
Prin. Invest.: D F BERNATH
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 – ASTRONOMY

NAG 5 4149 UNIVERSITY OF ARIZONA **1485**
NUMERICAL STUDIES OF IMPACTS AND COLLISIONS
 03/15/1997 – 01/31/1998 FY98: \$0 Total: \$39,960
Prin. Invest.: D BENZ
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4151 UNIVERSITY OF ARIZONA **1486**
INSTRUMENT UPGRADE FOR COMET OBSERVATIONS
 03/17/1997 – 10/31/1997 FY98: \$0 Total: \$61,400
Prin. Invest.: M M LARSON
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 – ASTRONOMY

NAG 5 4158 UNIVERSITY OF ARIZONA **1487**
ESCAPED ATMOSPHERIC GASES IN THE MAGNETOSPHERES OF URANUS
 03/11/1997 – 10/31/1998 FY98: \$50,700 Total: \$99,200
Prin. Invest.: D HERBERT
Tech. Officer: GSFC/J BERGSTALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4160 UNIVERSITY OF ARIZONA **1488**
OBSERVATIONS OF INNER-BELT C, E, AND M CLASS ASTER
 04/09/1997 – 12/31/1998 FY98: \$35,380 Total: \$70,960
Prin. Invest.: M T BRITT
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 – ASTRONOMY

NAG 5 4161 UNIVERSITY OF ARIZONA **1489**
MARS THERMOSPHERE GENERAL CIRCULATION MODEL
 03/27/1997 – 03/31/1999 FY98: \$75,000 Total: \$145,000
Prin. Invest.: D W BOUGHER
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4166 UNIVERSITY OF ARIZONA **1490**
OBSERVATIONAL STUDIES OF PLANETARY ATMOSPHERES
 03/15/1997 – 03/14/1999 FY98: \$50,002 Total: \$110,004
Prin. Invest.: D M HUNTEN
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 – ASTRONOMY

NAG 5 4211 UNIVERSITY OF ARIZONA **1491**
NEW RESEARCH BY CCD SCANNING FOR COMETS AND ASTERO
 03/19/1997 – 02/28/1998 FY98: \$0 Total: \$64,966
Prin. Invest.: D GEHRELS
Tech. Officer: GSFC/J BERGSTALH
CASE Category: 11 – ASTRONOMY

NAG 5 4213 UNIVERSITY OF ARIZONA **1492**
INFRARED OBSERVATIONS OF SOLAR SYSTEM OBJECTS
 03/19/1997 – 12/31/1998 FY98: \$58,327 Total: \$116,654
Prin. Invest.: D A LEBOWSKY
Tech. Officer: GSFC/J BERGSTALH
CASE Category: 11 – ASTRONOMY

NAG 5 4214 UNIVERSITY OF ARIZONA **1493**
INTERIORS AND ATMOSPHERES OF THE OUTER PLANETS
 03/24/1997 – 12/31/1998 FY98: \$84,000 Total: \$128,000
Prin. Invest.: D B HUBBARD
Tech. Officer: GSFC/J BERGSTALH
CASE Category: 11 – ASTRONOMY

NAG 5 4350 UNIVERSITY OF ARIZONA **1494**
OBSERVATIONS OF COMET HALE-BOPP
 04/17/1997 - 02/28/1999 FY98: \$39,000 Total: \$113,000
Prin. Invest.: M M LARSON
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAG 5 4353 UNIVERSITY OF ARIZONA **1495**
1997 APPARITION OF COMET HALE-BOPP
 04/09/1997 - 12/31/1997 FY98: \$0 Total: \$7,000
Prin. Invest.: D FINK
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAG 5 4380 UNIVERSITY OF ARIZONA **1496**
PHYSICS OF CIRCUMSTELLAR ACCRETION DISKS
 05/06/1997 - 02/28/1999 FY98: \$30,000 Total: \$74,988
Prin. Invest.: D BENZ
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4404 UNIVERSITY OF ARIZONA **1497**
X-RAY OBSERVATIONS OF THE HIGHEST-FIELD AMHERST SYS
 05/05/1997 - 05/14/1998 FY98: \$0 Total: \$5,091
Prin. Invest.: G D SCHMIDT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4451 UNIVERSITY OF ARIZONA **1498**
STUDIES IN PLANETARY RINGS
 05/08/1997 - 12/31/1998 FY98: \$50,000 Total: \$79,400
Prin. Invest.: D C PORCO
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4456 UNIVERSITY OF ARIZONA **1499**
HARNESSING SOLAR IRRADIANCE FOR SPACE LIFE SUPPORT
 05/23/1997 - 10/31/1998 FY98: \$0 Total: \$132,834
Prin. Invest.: J L CUELLO
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4480 UNIVERSITY OF ARIZONA **1500**
EOS/IDS PROJECT TO INTERFACE CLIMATE MODELING ON G SCALES WITH EARTH OBSERVING SYSTEM (EOS) OBSERVAT
 05/09/1997 - 03/31/1999 FY98: \$680,000 Total: \$1,280,000
Prin. Invest.: R DICKINSON
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4559 UNIVERSITY OF ARIZONA **1501**
THEORY OF CHARGED-PARTICLE TRANSPORT AND ASTROPHYS
 06/02/1997 - 01/31/2001 FY98: \$30,000 Total: \$100,000
Prin. Invest.: J JOKIPII
Tech. Officer: GSFC/M A FORMAN
CASE Category: 13 - PHYSICS

NAG 5 4560 UNIVERSITY OF ARIZONA **1502**
IR OBSERVATIONS OF ICY SATELLITES IN THE OUTER SOL
 06/23/1997 - 09/30/1998 FY98: \$0 Total: \$82,369
Prin. Invest.: D H BROWN
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4568 UNIVERSITY OF ARIZONA **1503**
LONG TERM DOPPLER SHIFT AND LINE PROFILE STUDIES OF TARGET STARS
 05/20/1997 - 02/28/1999 FY98: \$86,667 Total: \$237,634
Prin. Invest.: D S MCMILLAN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4667 UNIVERSITY OF ARIZONA **1504**
FORMATION OF LOW MASS STARS, BROWN DWARFS
 06/26/1997 - 06/30/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: P RIEKE
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4667 UNIVERSITY OF ARIZONA **1505**
INTERNATIONAL WORKSHOP ON DYNAMICS OF LAND-USE/LAND-HINDU-KUSH HIMALAYA
 06/26/1997 - 05/31/1998 FY98: \$0 Total: \$10,800
Prin. Invest.: L J GRAUMLICH
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4669 UNIVERSITY OF ARIZONA **1506**
ENERGETIC PHENOMENA IN THE PROTOPLANETARY NEBULA
 06/17/1997 - 10/31/1998 FY98: \$0 Total: \$45,000
Prin. Invest.: D H LEVY
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4663 UNIVERSITY OF ARIZONA **1507**
INCORPORATION OF NOBLE GASES INTO CARBONACEOUS MAT
 06/17/1997 - 05/31/1998 FY98: \$0 Total: \$36,753
Prin. Invest.: D D SWINDLE
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4766 UNIVERSITY OF ARIZONA **1508**
COOLING HISTORY OF METEORITES: CONSTRAINTS FROM FE-TALLINE PARTITIONING AND INTERDIFFUSION KINETICS
 06/23/1997 - 01/31/1998 FY98: \$0 Total: \$60,000
Prin. Invest.: D GANGULY
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4767 UNIVERSITY OF ARIZONA **1509**
NOBLE GAS STUDIES OF EARLY SOLAR SYSTEM HISTORY
 06/09/1997 - 05/31/1999 FY98: \$13,333 Total: \$45,333
Prin. Invest.: D D SWINDLE
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4764 UNIVERSITY OF ARIZONA **1510**
HRI OBSERVATIONS OF HIGH REDSHIFT QUASARS
 06/18/1997 - 05/31/1998 FY98: \$0 Total: \$5,300
Prin. Invest.: J BECHTOLD
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4832 UNIVERSITY OF ARIZONA 1511
COSMOGENIC 14C IN METEORITES AND LUNAR SAMPLES
 06/17/1997 – 05/31/1999 FY98: \$14,583 Total: \$49,583
Prin. Invest.: D JULLE
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4834 UNIVERSITY OF ARIZONA 1512
TRANSPORT EQUATIONS OF COSMIC RAYS
 06/17/1997 – 03/14/1998 FY98: \$31,250 Total: \$81,250
Prin. Invest.: M KOTA
Tech. Officer: GSFC/M A FORMAN
CASE Category: 11 – ASTRONOMY

NAG 5 4835 UNIVERSITY OF ARIZONA 1513
MAGNETOHYDRODYNAMIC WAVE-WAVE INTERACTIONS IN THE
 06/17/1997 – 04/30/1998 FY98: \$0 Total: \$33,000
Prin. Invest.: D M WEBB
Tech. Officer: GSFC/M A FORMAN
CASE Category: 11 – ASTRONOMY

NAG 5 4845 UNIVERSITY OF ARIZONA 1514
GAS-GRAIN INTERACTIONS
 06/27/1997 – 10/31/1998 FY98: \$0 Total: \$37,600
Prin. Invest.: D L HOOD
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4944 UNIVERSITY OF ARIZONA 1515
MINERALOGIC AND TRACE-ELEMENT STUDIES OF METEORITE IMPACTS
 06/23/1997 – 12/14/1998 FY98: \$176,000 Total: \$461,000
Prin. Invest.: D V BOYNTON
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4984 UNIVERSITY OF ARIZONA 1516
MEASURING MARTIAN ATMOSPHERIC WATER VAPOR
 06/26/1997 – 03/14/1999 FY98: \$64,301 Total: \$128,601
Prin. Invest.: D L SPRAGUE
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 – ASTRONOMY

NAG 5 5031 UNIVERSITY OF ARIZONA 1517
CONTINUOUS CHEMICAL ANALYSIS OF GREENLAND FIRN & ICE CORES FOR ESTIMATING ANNUAL ACCUMULATION
 03/28/1995 – 03/31/1998 FY98: \$0 Total: \$252,370
Prin. Invest.: R C BALES
Tech. Officer: GSFC/W B KRABILL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 5143 UNIVERSITY OF ARIZONA 1518
A TWO-DIMENSIONAL IMAGING FUV SPECTROGRAPH
 06/23/1997 – 10/31/1998 FY98: \$349,147 Total: \$499,050
Prin. Invest.: J HOLBERG
Tech. Officer: GSFC/W JOHNSON
CASE Category: 13 – PHYSICS

NAG 5 5180 UNIVERSITY OF ARIZONA 1519
COSMIC RAY TRANSPORT AND WAVES IN ASTROPHYSICAL PLASMAS
 03/09/1998 – 12/31/1998 FY98: \$40,000 Total: \$40,000
Prin. Invest.: G M WEBB
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 6070 UNIVERSITY OF ARIZONA 1520
PROPOSAL TITLE "INVESTIGATION OF SIGNAL AND IMAGE FOR CLOUD DETECTION BY GROUND-BASED AND SPACEBORNE
 07/28/1997 – 06/30/1999 FY98: \$50,000 Total: \$101,713
Prin. Invest.: J REAGAN
Tech. Officer: GSFC/A NEGRI
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6184 UNIVERSITY OF ARIZONA 1521
SUBSURFACE LIQUID WATER ON MARS: EVIDENCE FROM CR AND EXO-BIOLOGICAL IMPLICATIONS/PRESIDENTIAL EARLY
 07/30/1997 – 07/14/1998 FY98: \$0 Total: \$131,860
Prin. Invest.: D V CHYBA
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 6339 UNIVERSITY OF ARIZONA 1522
VALIDATION AND CORRECTION FOR THE MODIS SPATIAL RESPONSE
 10/02/1997 – 09/30/1999 FY98: \$308,547 Total: \$308,547
Prin. Invest.: R SCHOWENGERDT
Tech. Officer: GSFC/D O STARR
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 6362 UNIVERSITY OF ARIZONA 1523
TOMOGRAPHIC ANALYSIS OF EXTREME ULTRAVIOLET OBSERVATIONS OF THE IO PLASMA
 10/24/1997 – 08/31/1999 FY98: \$65,449 Total: \$65,449
Prin. Invest.: F HERBERT
Tech. Officer: GSFC/D BOHLIN
CASE Category: 11 – ASTRONOMY

NAG 5 6418 UNIVERSITY OF ARIZONA 1524
1.SOURCES OF OPACITY IN THE EUV SPECTRA OF DA WDS 2.EUVE OFHIDDEN WDCOMPANIONS TO 2 EARLY TYPE S
 12/02/1997 – 11/30/1998 FY98: \$34,200 Total: \$34,200
Prin. Invest.: J B HOLBERG
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 6461 UNIVERSITY OF ARIZONA 1525
LIS VALIDATION STUDIES USING LIGHTNING AT THE KSC- ER
 10/14/1997 – 09/30/1999 FY98: \$225,560 Total: \$225,560
Prin. Invest.: P KRIDER
Tech. Officer: GSFC/D O STARR
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 6542 UNIVERSITY OF ARIZONA 1526
EARTH OBSERVATION RESOURCES INFRASTRUCTURE FOR INTEGRATED REGIONAL ASSESSMENTS IN THE SONORAN DESERT
 10/24/1997 – 09/30/1998 FY98: \$291,913 Total: \$291,913
Prin. Invest.: R A SCHOWENGERDT
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6543 UNIVERSITY OF ARIZONA **1527**
IMPACT CRATERING AND THE EVOLUTION OF THE TERRESTRIAL PLANETS
 12/08/1997 - 09/30/1998 FY98: \$150,000 Total: \$150,000
Prin. Invest.: H MELOSH
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6611 UNIVERSITY OF ARIZONA **1528**
SPACEWATCH SURVEY OF THE SOLAR SYSTEM
 02/12/1998 - 11/30/1998 FY98: \$75,872 Total: \$75,872
Prin. Invest.: R S MCMILLAN
Tech. Officer: GSFC/T MORGAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6620 UNIVERSITY OF ARIZONA **1529**
THEORETICAL AND MODELLING SUPPORT FOR THE HELIOSPHERIC MIS-
SIONS
 11/18/1997 - 11/14/1998 FY98: \$95,000 Total: \$95,000
Prin. Invest.: J JOKIPPI
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6663 UNIVERSITY OF ARIZONA **1530**
GENERATION AND BEHAVIOR OF SOLAR SYSTEM MAGNETIC FIELDS
 11/25/1997 - 11/30/1999 FY98: \$69,000 Total: \$69,000
Prin. Invest.: D H LEVY
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6687 UNIVERSITY OF ARIZONA **1531**
USING UARS MLS TO INVESTIGATE THE IMPACTS OF TROPOSPHERE
CONVECTION AND PLANETARY-SCALE ANISOTROPY
 11/25/1997 - 11/30/1998 FY98: \$78,635 Total: \$78,635
Prin. Invest.: D FU
Tech. Officer: GSFC/A DOUGLASS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6779 UNIVERSITY OF ARIZONA **1532**
ANALYSIS OF ICE CORES FOR ESTIMATING ACCUMULATION PATTERNS
AND PALEOATMOSPHERIC CHEMISTRY IN GREENLAND
 01/14/1998 - 12/31/1998 FY98: \$110,124 Total: \$110,124
Prin. Invest.: R BALES
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6944 UNIVERSITY OF ARIZONA **1533**
ORIGIN AND EVOLUTION OF PLANETARY ATMOSPHERES
 02/10/1998 - 01/31/1999 FY98: \$39,990 Total: \$39,990
Prin. Invest.: J S LEWIS
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 6945 UNIVERSITY OF ARIZONA **1534**
THEORETICAL STUDIES OF PLANETARY ATMOSPHERES
 02/10/1998 - 01/31/1999 FY98: \$45,000 Total: \$45,000
Prin. Invest.: D M HUNTEN
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 6967 UNIVERSITY OF ARIZONA **1535**
THE ROLE OF ATMOSPHERIC-LAND-OCEAN COUPLING IN DETERMINING
CLOUDS, PRECIPITATION AND WATER VAPOR
 03/06/1998 - 06/30/1999 FY98: \$148,000 Total: \$148,000
Prin. Invest.: R FU
Tech. Officer: GSFC/K H BERGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6980 UNIVERSITY OF ARIZONA **1536**
GAS-GRAIN INTERACTIONS
 02/06/1998 - 10/31/1998 FY98: \$38,600 Total: \$38,600
Prin. Invest.: L L HOOD
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6983 UNIVERSITY OF ARIZONA **1537**
GLOW DAYGLOW MEASUREMENTS: EQUATORIAL IONOSPHERIC METALS &
METAL IONS
 02/09/1998 - 03/31/1999 FY98: \$52,000 Total: \$52,000
Prin. Invest.: J A GARDNER
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7004 UNIVERSITY OF ARIZONA **1538**
HOT SUBLIMINOUS STARS IN THE IUE ARCHIVES: NEWSIPS REDUCTION
AND NON-LTE ANALYSIS
 02/06/1998 - 02/14/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: J HOLBERG
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7022 UNIVERSITY OF ARIZONA **1539**
SILICATE VOLCANISM ON IO
 04/09/1998 - 03/31/2000 FY98: \$35,000 Total: \$35,000
Prin. Invest.: L KESZTHELYI
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7072 UNIVERSITY OF ARIZONA **1540**
GALILEO AND CLEMENTINE CARTOGRAPHY SUPPORT
 02/20/1998 - 03/31/1999 FY98: \$75,000 Total: \$75,000
Prin. Invest.: A S MCEWEN
Tech. Officer: GSFC/P ROGERS
CASE Category: 11 - ASTRONOMY

NAG 5 7073 UNIVERSITY OF ARIZONA **1541**
A COMPREHENSIVE THEORY FOR M DWARFS, BROWN DWARFS, AND
GIANT PLANETS-ATP
 02/24/1998 - 02/14/1999 FY98: \$85,696 Total: \$85,696
Prin. Invest.: A S BURROWS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7083 UNIVERSITY OF ARIZONA **1542**
INFRARED OBSERVATIONS OF SMALL BODIES IN THE OUTER SOLAR
SYSTEM
 03/10/1998 - 03/31/1999 FY98: \$50,999 Total: \$50,999
Prin. Invest.: R H BROWN
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 7089 UNIVERSITY OF ARIZONA 1543
STRUCTURE OF THE HELIOSPHERE INFERRED FROM VOYAGER UVS MEASUREMENTS
 02/23/1998 – 01/31/1999 FY98: \$33,333 Total: \$33,333
Prin. Invest.: B R SANDEL
Tech. Officer: GSFC/J LING
CASE Category: 11 – ASTRONOMY

NAG 5 7151 UNIVERSITY OF ARIZONA 1544
THE PHYSICAL ORIGIN OF GALAXY MORPHOLOGIES AND SCALING LAWS-ATP
 03/04/1998 – 03/14/1999 FY98: \$94,097 Total: \$94,097
Prin. Invest.: M STEINMETZ
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7200 UNIVERSITY OF ARIZONA 1545
LINE PROFILE SPECTROMETER TO CONFIRM PLANET DETECTIONS
 04/30/1998 – 04/14/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: N J WOOLF
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7211 UNIVERSITY OF ARIZONA 1546
COUPLED PHYSICAL AND CHEMICAL EVOLUTION OF THE SOLAR NEBULA
 03/26/1998 – 01/31/2001 FY98: \$30,000 Total: \$30,000
Prin. Invest.: J LUNINE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7215 UNIVERSITY OF ARIZONA 1547
INCORPORATION OF NOBLE GASES INTO INTERSTELLAR ICE ANALOGS
 03/31/1998 – 05/31/2001 FY98: \$27,225 Total: \$27,225
Prin. Invest.: T D SWINDLE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7249 UNIVERSITY OF ARIZONA 1548
MODELING OF MOSS AND LICHEN IN THE BOREAL FORESTS
 04/28/1998 – 04/30/2000 FY98: \$72,678 Total: \$72,678
Prin. Invest.: R E DICKINSON
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7257 UNIVERSITY OF ARIZONA 1549
ALGORITHM FOR FUTURE OZONE PROFILING USING LIMB SCATTER MEASUREMENTS
 04/14/1998 – 04/14/1999 FY98: \$65,000 Total: \$65,000
Prin. Invest.: B M HERMAN
Tech. Officer: GSFC/R D MCPETERS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7364 UNIVERSITY OF ARIZONA 1550
THERMAL HISTORY OF PLANETARY MATERIALS: EXPERIMENTAL & THEORETICAL STUDIES, AND APPLICATIONS
 04/29/1998 – 04/30/2001 FY98: \$45,000 Total: \$45,000
Prin. Invest.: J GANGULY
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7470 UNIVERSITY OF ARIZONA 1551
A LIGHT AIRCRAFT RADIOMETRIC PACKAGE FOR MODLAND QUICK AIRBORNE LOOKS (MQUALS)
 06/02/1998 – 06/14/1999 FY98: \$53,913 Total: \$53,913
Prin. Invest.: A HUETE
Tech. Officer: GSFC/J L PRIVETTE
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 7499 UNIVERSITY OF ARIZONA 1552
THEORETICAL MODELS OF EXTRASOLAR GIANT PLANETS
 06/01/1998 – 04/30/2001 FY98: \$50,000 Total: \$50,000
Prin. Invest.: A BURROWS
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7509 UNIVERSITY OF ARIZONA 1553
METEORITE IMPACT AND GLOBAL CHANGE: A NUMERICAL STUDY OF THE RESPONSE OF THE EARTH'S CLIMATE TO L
 06/30/1998 – 08/31/2000 FY98: \$46,966 Total: \$46,966
Prin. Invest.: H MELOSH
Tech. Officer: GSFC/M MEYER
CASE Category: 11 – ASTRONOMY

NAG 5 7523 UNIVERSITY OF ARIZONA 1554
CATALINA SKY SURVEY IMPROVEMENTS
 07/09/1998 – 05/31/1999 FY98: \$106,149 Total: \$106,149
Prin. Invest.: S LARSON
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 – ASTRONOMY

NAG 5 7533 UNIVERSITY OF ARIZONA 1555
MOSAIC OF CCDs TO SURVEY FOR ASTEROIDS AND COMETS
 06/11/1998 – 07/31/1999 FY98: \$730,006 Total: \$730,006
Prin. Invest.: R S MCMILLAN
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 – ASTRONOMY

NAG 5 7554 UNIVERSITY OF ARIZONA 1556
PRECURSORY SIGNALS ASSOCIATED WITH REGIONAL AND INTR-ANNUAL VARIABILITY OF THE NORTH AMERICAN SUMMER
 06/25/1998 – 06/30/2001 FY98: \$399,999 Total: \$399,999
Prin. Invest.: W SHUTTLEWORTH
Tech. Officer: GSFC/E ENGMAN
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 8 1079 UNIVERSITY OF ARIZONA 1557
PLASMA IMAGING
 06/08/1994 – 06/30/1997 FY98: -\$24 Total: \$234,076
Prin. Invest.: A L BROADFOOT
Tech. Officer: MSFC/J H OWENS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 8 1234 UNIVERSITY OF ARIZONA 1558
NON-EQUILIBRIUM PHASE TRANSFORMATION
 04/25/1996 – 04/30/2000 FY98: \$157,500 Total: \$367,500
Prin. Invest.: K A JACKSON
Tech. Officer: MSFC/C R TALLEY
CASE Category: 13 – PHYSICS

NAG 8 1469 UNIVERSITY OF ARIZONA 1559
**DEVELOPMENT OF SUPERIOR MATERIALS FOR LAYERED SOLID OXIDE
 ELECTROLYZERS BASED ON MECHANICAL**
 04/17/1998 - 01/31/2002 FY98: \$50,000 Total: \$50,000
Prin. Invest.: J R SRIDHAR
Tech. Officer: MSFC/C TALLEY
CASE Category: 46 - MECHANICAL ENGR

NAG 8 1520 UNIVERSITY OF ARIZONA 1560
**QUANTIFYING THE EFFECTS OF SUB-GRID TOPOGRAPHY & VEGETATION
 ON SEASONAL SNOW COVER, RELATED SNOWMILT**
 05/29/1998 - 03/31/2001 FY98: \$117,026 Total: \$117,026
Prin. Invest.: Z YANG, R BALES, R E DICKINSON
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1523 UNIVERSITY OF ARIZONA 1561
**IMPROVING GCM MODELING THRU HYDROLOGICALLY REAL-ISTIC SUB-
 GRID REPRESENTATION OF LAND-ATMOSPHERE**
 05/26/1998 - 05/31/2001 FY98: \$159,779 Total: \$159,779
Prin. Invest.: S SOROOSHIAN, H GUPTA, X GAO
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1531 UNIVERSITY OF ARIZONA 1562
**INFLUENCE OF SUBGRID SCALE HETEROGENEITY ON REMOTELY SENSED
 SURFACE TEMPERATURES**
 06/01/1998 - 05/31/2001 FY98: \$210,000 Total: \$210,000
Prin. Invest.: W J SHUTTLEWORTH, J J TOTH
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1542 UNIVERSITY OF ARIZONA 1563
ALDF NETWORK INSTALLATION IN SUPPORT OF LIS VALIDATION
 07/22/1998 - 09/30/2000 FY98: \$44,300 Total: \$44,300
Prin. Invest.: C D WEIDMAN
Tech. Officer: MSFC/R J BLAKESLEE, MSFC/S J GOODMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 923 UNIVERSITY OF ARIZONA 1564
POLYCRYSTALLINE ZIRCONIA ELEC CELL STACK FOR CO2 ELECTROLYSIS
 01/29/1997 - 12/17/1998 FY98: \$110,000 Total: \$200,749
Prin. Invest.: K R SRIDHAR
Tech. Officer: JSC/R S BAIRD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 285 UNIVERSITY OF ARIZONA 1565
HYDROGEOLOGIC STUDIES OF MARS
 01/15/1982 - 09/30/1996 FY98: -\$7 Total: \$533,262
Prin. Invest.: V R BAKER
Tech. Officer: HQ/J R UNDERWOOD, HQ/J M BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 428 UNIVERSITY OF ARIZONA 1566
CRATER MODIFICATION BY GRAVITY
 03/15/1983 - 09/30/1997 FY98: \$152,000 Total: \$1,868,010
Prin. Invest.: H J MELOSH
Tech. Officer: HQ/J R UNDERWOOD, HQ/D SCOTT
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 837 UNIVERSITY OF ARIZONA 1567
DEVELOPMENT OF CCD SCANNING FOR ASTEROIDS/COMETS
 12/01/1985 - 06/30/1997 FY98: -\$811 Total: \$702,504
Prin. Invest.: T GEHRELS
Tech. Officer: HQ/H C BRINTON, HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NAGW 1129 UNIVERSITY OF ARIZONA 1568
COLLISIONAL AND DYNAMICAL PROCESSES
 12/01/1985 - 09/30/1996 FY98: -\$399 Total: \$927,958
Prin. Invest.: R J GREENBERG
Tech. Officer: HQ/J R UNDERWOOD, HQ/J M BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 1283 UNIVERSITY OF ARIZONA 1569
SEARCH FOR EXTRASOLAR PLANETS
 04/12/1988 - 06/30/1997 FY98: -\$10 Total: \$941,526
Prin. Invest.: R S MCMILLAN
Tech. Officer: HQ/H C BRINTON, HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NAGW 1235 UNIVERSITY OF ARIZONA 1570
SPACE INFRARED DETECTOR DEVELOPMENT
 05/11/1988 - 12/31/1998 FY98: \$0 Total: \$1,363,732
Prin. Invest.: E YOUNG
Tech. Officer: HQ/F C GILLET
CASE Category: 11 - ASTRONOMY

NAGW 1312 UNIVERSITY OF ARIZONA 1571
CENTER FOR UTIL. OF LOCAL PLANETARY RESOURCES
 07/13/1988 - 12/31/1998 FY98: \$0 Total: \$9,970,182
Prin. Invest.: S C CROW, K N RAMOHALI
Tech. Officer: HQ/B F QUIGLEY
CASE Category: 49 - ENGINEERING, OTHER

NAGW 1458 UNIVERSITY OF ARIZONA 1572
AN INVESTIGATION OF THE INTERACTION BETWEEN THE NEUTRAL
 11/17/1988 - 09/30/1997 FY98: -\$137 Total: \$309,295
Prin. Invest.: F HERBERT
Tech. Officer: HQ/J T BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAGW 1549 UNIVERSITY OF ARIZONA 1573
PLANETARY SPECTROSCOPY
 12/12/1988 - 09/30/1997 FY98: \$0 Total: \$812,753
Prin. Invest.: U FINK
Tech. Officer: HQ/E BARKER, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 1555 UNIVERSITY OF ARIZONA 1574
INTERIORS OF THE GIANT PLANETS
 12/12/1988 - 09/30/1997 FY98: -\$4,263 Total: \$582,118
Prin. Invest.: W B HUBBARD
Tech. Officer: HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NAGW 1931 UNIVERSITY OF ARIZONA **1575**
THEORY OF CHARGED-PARTICLE TRANSPORT AND ASTROPHYSICAL PLASMAS
 02/23/1990 – 10/31/1996 FY98: -\$10 Total: \$706,383
Prin. Invest.: J R JOKIPPI
Tech. Officer: HQ/J C LING, HQ/W V JONES
CASE Category: 13 – PHYSICS

NAGW 1975 UNIVERSITY OF ARIZONA **1576**
INFRARED OBSERVATIONS OF SOLAR SYSTEM OBJECTS
 04/10/1990 – 06/30/1997 FY98: -\$104 Total: \$323,448
Prin. Invest.: L A LEBOWSKY
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 11 – ASTRONOMY

NAGW 2021 UNIVERSITY OF ARIZONA **1577**
PLANETARY CRATERING INVESTIGATIONS AND ICY SATELLITE TECTONICS
 03/05/1990 – 06/01/1997 FY98: \$0 Total: \$437,638
Prin. Invest.: R G STROM
Tech. Officer: HQ/J M BOYCE
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 2176 UNIVERSITY OF ARIZONA **1578**
GENERATION AND BEHAVIOR OF SOLAR-SYSTEM MAGNETIC FIELDS
 07/27/1990 – 06/30/1997 FY98: -\$10,336 Total: \$615,587
Prin. Invest.: E H LEVY
Tech. Officer: HQ/T A MAXWELL
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 2249 UNIVERSITY OF ARIZONA **1579**
NAGW-2249/UNIV ARIZONA/THE MEASUREMENT OF ISOTOPIC ABUNDANCE & MOLECULAR COMPOSITION OF INDIVIDUAL
 06/13/1991 – 03/30/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: C Y FAN
Tech. Officer: HQ/J A NUTH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 2250 UNIVERSITY OF ARIZONA **1580**
NAGW-2250/UNIV ARIZONA/COUPLED PHYSICAL & CHEMICAL EVOLUTION OF THE SOLAR NEBULA: A CONSORTIUM STUDY
 03/06/1991 – 06/30/1997 FY98: -\$465 Total: \$239,349
Prin. Invest.: J I LUNINE
Tech. Officer: HQ/J A NUTH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 2291 UNIVERSITY OF ARIZONA **1581**
ENERGETIC PHENOMENA IN PROTOPLANETARY NEBULAE
 02/26/1991 – 09/30/1997 FY98: -\$87,916 Total: \$193,206
Prin. Invest.: E LEVY
Tech. Officer: HQ/J A NUTH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 2315 UNIVERSITY OF ARIZONA **1582**
NAGW-2315/UNIV ARIZONA/GAS-PLASMA-GRAIN INTERACTIONS
 05/23/1991 – 10/31/1996 FY98: \$0 Total: \$165,600
Prin. Invest.: L L HOOD
Tech. Officer: HQ/J A NUTH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 2357 UNIVERSITY OF ARIZONA **1583**
DEVELOPMENT OF LIGHTWEIGHT MIRRORS FOR STRATOSPHERIC AND SPACE INFRARED AND SUB
 01/29/1991 – 09/30/1998 FY98: \$0 Total: \$651,400
Prin. Invest.: W F HOFFMAN
Tech. Officer: HQ/M D BICAY
CASE Category: 13 – PHYSICS

NAGW 2425 UNIVERSITY OF ARIZONA **1584**
UTILIZATION OF EOS DATA IN QUANTIFYING THE PROCESSES CONTROLLING THE HYDROLOGIC CYCLE IN ARID REGION
 04/19/1991 – 09/30/1997 FY98: \$0 Total: \$3,276,576
Prin. Invest.: S SOROOSHIAN
Tech. Officer: HQ/G ASRAR, HQ/W S WILSON
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 2493 UNIVERSITY OF ARIZONA **1585**
NAGW-2493/UNIV ARIZONA/MARS MESOSPHERE THERMOSPHERIC COUPLING
 08/06/1991 – 09/30/1997 FY98: -\$334 Total: \$353,995
Prin. Invest.: S W BOUGHER
Tech. Officer: HQ/J T BERGSTRALH
CASE Category: 11 – ASTRONOMY

NAGW 2822 UNIVERSITY OF ARIZONA **1586**
A MULTI-WAVELENGTH STUDY OF THE INNER 3-PC REGION AT THE GALACTIC CENTER
 01/03/1992 – 04/30/1998 FY98: \$0 Total: \$447,354
Prin. Invest.: F MELIA
Tech. Officer: HQ/G R RIEGLER
CASE Category: 11 – ASTRONOMY

NAGW 2878 UNIVERSITY OF ARIZONA **1587**
PHYSICAL STUDIES OF SMALL ASTEROIDS, COMETARY AND GALILEO TARGETS 243 IDA AND 951 GASPRA
 02/10/1992 – 04/30/1997 FY98: -\$134 Total: \$166,782
Prin. Invest.: R MCMILLAN
Tech. Officer: HQ/J L RAHE
CASE Category: 11 – ASTRONOMY

NAGW 3076 UNIVERSITY OF ARIZONA **1588**
NAGW-3076/UNIV ARIZONA/INSTRUMENTATION FOR CHEMICAL ANALYSIS OF PLANETARY SURFACES
 06/12/1992 – 09/30/1997 FY98: -\$407 Total: \$995,859
Prin. Invest.: W V BOYNTON
Tech. Officer: HQ/H C BRINTON
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 3373 UNIVERSITY OF ARIZONA **1589**
MINERALOGIC AND TRACE ELEMENT STUDIES OF METEORITES AND METEORITE IMPACTS
 02/10/1993 – 09/30/1997 FY98: \$0 Total: \$992,070
Prin. Invest.: W BOYNTON
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 3400 UNIVERSITY OF ARIZONA **1590**
ORIGIN AND EVOLUTION OF PLANETARY ATMOSPHERE
 03/15/1993 – 09/30/1997 FY98: \$0 Total: \$244,905
Prin. Invest.: J LEWIS
Tech. Officer: HQ/H C BRINTON
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 3406 UNIVERSITY OF ARIZONA 1591
PHYSICS OF CIRCUMSTELLAR ACCRETION DISKS
 02/18/1993 - 12/31/1997 FY98: -\$39,234 Total: \$141,445
Prin. Invest.: W BENZ
Tech. Officer: HQ/J A NUTH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3543 UNIVERSITY OF ARIZONA 1592
**NAGW-3543/UNIV ARIZONA/SEAWIFS CALIBRATION AND ALG ORTHM VAL-
 IDATION**
 04/21/1993 - 09/30/1998 FY98: \$0 Total: \$414,079
Prin. Invest.: P N SLATER
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 33 - OCEANOGRAPHY

NAGW 3611 UNIVERSITY OF ARIZONA 1593
NOBLE GAS STUDIES OF EARLY SOLAR SYSTEM HISTORY
 05/21/1993 - 08/31/1997 FY98: \$0 Total: \$131,712
Prin. Invest.: T SWINDLE
Tech. Officer: HQ/J BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3638 UNIVERSITY OF ARIZONA 1594
**CATION ORDERING AND COMPOSITIONAL ZONING IN METEORITIC OTHO-
 PYROXENES: IMPLICATIONS FOR COOLING RATE**
 07/05/1993 - 09/30/1997 FY98: \$0 Total: \$169,316
Prin. Invest.: J GANGULY
Tech. Officer: HQ/J M BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3657 UNIVERSITY OF ARIZONA 1595
**THE VOYAGER ULTRAVIOLET SPECTROMETER EXPERIMENT TH ROUGH
 THE VOYAGER INTERSTELLAR MISSION**
 06/16/1993 - 09/30/1997 FY98: \$0 Total: \$583,000
Prin. Invest.: A BROADFOOT
Tech. Officer: HQ/W V JONES, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 3846 UNIVERSITY OF ARIZONA 1596
**UNIV ARIZONA; OPTIMIZING CHARGE-COUPLED DEVICES FOR THE NEAR
 ULTRAVIOLET**
 01/11/1994 - 01/31/1998 FY98: \$0 Total: \$179,944
Prin. Invest.: M P LESSER
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 3904 UNIVERSITY OF ARIZONA 1597
NUMERICAL STUDIES OF IMPACTS AND COLLISIONS
 03/23/1994 - 01/31/1998 FY98: \$0 Total: \$129,857
Prin. Invest.: W BENZ
Tech. Officer: HQ/R WILLIAMS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 4083 UNIVERSITY OF ARIZONA 1598
**LOW MASS STARS AND BROWN DWARFS: FORMATION AND TEST OF
 ATMOSPHERIC MODELS**
 07/15/1994 - 12/31/1997 FY98: -\$19 Total: \$134,981
Prin. Invest.: G RIEKE
Tech. Officer: HQ/P ROGERS
CASE Category: 11 - ASTRONOMY

NAGW 4165 UNIVERSITY OF ARIZONA 1599
**REMOTE SENSING SOIL MOISTURE USING FOUR DIMENSIONAL DATA
 ASSIMILATION**
 10/12/1994 - 09/30/1997 FY98: -\$13 Total: \$136,987
Prin. Invest.: W J SHUTTLEWORTH
Tech. Officer: HQ/M Y WEI, HQ/J S THEON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4243 UNIVERSITY OF ARIZONA 1600
ADVANCED DESIGN PROGRAM
 01/11/1995 - 10/31/1996 FY98: -\$692 Total: \$16,658
Prin. Invest.: K RAMAHALLI
Tech. Officer: HQ/A S MCGEE
CASE Category: 49 - ENGINEERING, OTHER

NAGW 4403 UNIVERSITY OF ARIZONA 1601
WINDBLOWN FEATURES ON VENUS AND GEOLOGIC MAPPING (V-32)
 04/14/1995 - 02/28/1998 FY98: -\$628 Total: \$99,372
Prin. Invest.: R GREELEY
Tech. Officer: HQ/H BRINTON
CASE Category: 22 - COMPUTER SCIENCE

NAGW 4591 UNIVERSITY OF ARIZONA 1602
UVSTAR SCIENCE MANAGEMENT PROGRAM
 06/29/1995 - 06/30/1997 FY98: -\$4 Total: \$60,755
Prin. Invest.: B SANDEL
Tech. Officer: HQ/J KREHBIEL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4621 UNIVERSITY OF ARIZONA 1603
**NEAR INFRARED OBSERVATIONS OF TITAN'S LOWER ATMOSPHERE AND
 SURFACE**
 07/21/1995 - 03/31/1997 FY98: -\$73 Total: \$47,922
Prin. Invest.: P SMITH
Tech. Officer: HQ/E BARKER
CASE Category: 11 - ASTRONOMY

NAGW 4731 UNIVERSITY OF ARIZONA 1604
INFRARED EMISSION SPECTROSCOPY OF ASTROPHYSICAL MOLECULES
 09/06/1995 - 03/31/1997 FY98: -\$173 Total: \$129,827
Prin. Invest.: P BERNATH
Tech. Officer: HQ/L J CAROFF, HQ/L J CAROFF
CASE Category: 11 - ASTRONOMY

NAGW 4881 UNIVERSITY OF ARIZONA 1605
**THE ECONOMIC AND DEMOGRAPHIC CAUSES OF LAND USE AND LAND
 COVER CHANGE IN MEXICO**
 12/11/1995 - 12/31/1997 FY98: \$0 Total: \$150,905
Prin. Invest.: D LIVERMAN
Tech. Officer: HQ/N MAYNARD, HQ/R C HARRISS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 4921 UNIVERSITY OF ARIZONA 1606
**SAR INVESTIGATIONS OF LATE PLEISTOCENE PALEOFLOODS PALEO-
 LAKES, AND PALEOCLIMATED IN CENTRAL ASIA**
 02/12/1996 - 12/31/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: V R BAKER
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4944 UNIVERSITY OF ARIZONA **1607**
BEGINNING RESEARCH WITH THE 1.8 METER SPACEWATCH TELESCOPE
 02/14/1996 – 06/30/1997 FY98: -\$1 Total: \$129,674
Prin. Invest.: T GEHRELS
Tech. Officer: HQ/E BARKER, HQ/J RAHE
CASE Category: 13 – PHYSICS

NAGW 4987 UNIVERSITY OF ARIZONA **1608**
CORONAGRAPHIC OBSERVATIONS OF LUNAR SODIUM
 03/01/1996 – 06/30/1997 FY98: -\$5 Total: \$19,995
Prin. Invest.: D M HUNTEN
Tech. Officer: HQ/E BARKER, HQ/J RAHE
CASE Category: 13 – PHYSICS

NAGW 5055 UNIVERSITY OF ARIZONA **1609**
MAGNETOHYDRODYNAMIC WAVE-WAVE INTERACTIONS IN THE SOLAR WIND
 05/17/1996 – 09/30/1997 FY98: -\$56 Total: \$31,944
Prin. Invest.: G M WEBB
Tech. Officer: HQ/M A FORMAN, HQ/G L WITHBROE
CASE Category: 13 – PHYSICS

NAGW 5118 UNIVERSITY OF ARIZONA **1610**
SYSTEMATIC PROCESSING OF THE CLEMENTINE LUNAR IMAGING DATA-SET
 06/28/1996 – 09/30/1997 FY98: \$0 Total: \$200,000
Prin. Invest.: A S MCWEN
Tech. Officer: HQ/J BOYCE
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 5159 UNIVERSITY OF ARIZONA **1611**
METEORITE IMPACT AND GLOBAL CHANGE
 08/23/1996 – 07/31/1997 FY98: \$0 Total: \$43,000
Prin. Invest.: H MELOSH
Tech. Officer: HQ/M MEYER, HQ/H C BRINTON
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 5170 UNIVERSITY OF ARIZONA **1612**
INCORPORATION OF NOBLE GASES INTO CARBONACEOUS MATERIALS
 09/20/1996 – 05/31/1997 FY98: -\$81 Total: \$34,219
Prin. Invest.: T D SWINDLE
Tech. Officer: HQ/P G ROGERS, HQ/J RAHE
CASE Category: 13 – PHYSICS

NAGW 5211 UNIVERSITY OF ARIZONA **1613**
SEARCH FOR HIGH VELOCITY NA AND LI IN MERCURY'S ATMOSPHERE
 09/23/1996 – 08/31/1997 FY98: -\$1,254 Total: \$33,683
Prin. Invest.: A L SPRAGUE
Tech. Officer: HQ/E BARKER, HQ/H C BRINTON
CASE Category: 11 – ASTRONOMY

NAGW 5246 UNIVERSITY OF ARIZONA **1614**
THE ROLE OF ATMOSPHERIC-LAND-OCEAN COUPLING
 01/11/1997 – 12/31/1998 FY98: \$0 Total: \$143,000
Prin. Invest.: R FU
Tech. Officer: HQ/K H BERGMAN, HQ/R C HARRISS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG10 92 UNIVERSITY OF ARIZONA **1615**
LIGHTNING FIELD CHANGES & DISPLACEMENT CURRENTS AT KSC
 08/12/1991 – 06/30/1999 FY98: \$67,701 Total: \$319,351
Prin. Invest.: E P KRIDER
Tech. Officer: KSC/W JAFFERIS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG10 134 UNIVERSITY OF ARIZONA **1616**
EFFECT OF MICROGRAVITY ON TOBACCO HORNWORM (MANAUCHEXTA) DURING METAMORPHOSIS
 05/02/1994 – 10/01/1998 FY98: \$0 Total: \$230,575
Prin. Invest.: M T TISCHLER
Tech. Officer: KSC/W M KNOTT
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG10 249 UNIVERSITY OF ARIZONA **1617**
RESEARCH POLYCRYSTALLINE ZIRCONIA ELECTROLYZER CELL STACK FOR CO2 ELECTROLYSIS
 09/23/1998 – 05/31/1999 FY98: \$69,999 Total: \$69,999
Prin. Invest.: K R SRIDHAV
Tech. Officer: KSC/F N LIN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAS 1 18939 UNIVERSITY OF ARIZONA **1618**
SAGE III SCIENCE INVESTIGATION SUPPORT – P.I. – B. HERMAN
 02/28/1990 – 01/31/2005 FY98: \$103,319 Total: \$454,819
Prin. Invest.: B M HERMAN
Tech. Officer: LARC/G L MADDREA JR, LARC/L R MCMASTER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 1 19953 UNIVERSITY OF ARIZONA **1619**
SCIENCE SUPPORT TO THE LITE SCIENCE TEAM
 05/24/1993 – 05/23/2000 FY98: \$0 Total: \$269,000
Prin. Invest.: J A REAGAN
Tech. Officer: LARC/G L MADDREA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 5 30124 UNIVERSITY OF ARIZONA **1620**
SCIENTIFIC INTERPRETATION OF GPMS DATA
 08/10/1987 – 04/30/1998 FY98: \$0 Total: \$362,842
Prin. Invest.: D HUNTEN
Tech. Officer: GSFC/J R RICHARDS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 5 31289 UNIVERSITY OF ARIZONA **1621**
DEVELOPMENT OF THE HST SECOND GENERATION INSTRUMENT TITLED NICMOS
 12/20/1990 – 09/30/1997 FY98: -\$749,826 Total: \$91,002,735
Prin. Invest.: R L THOMPSON
Tech. Officer: GSFC/M M JURUTICH
CASE Category: 41 – AERONAUTICAL ENGR

NAS 5 31364 UNIVERSITY OF ARIZONA **1622**
EOS/MODIS INVESTIGATION FROM DR. HUETE
 01/24/1992 – 12/14/2001 FY98: \$412,000 Total: \$2,454,109
Prin. Invest.: A HUETE
Tech. Officer: GSFC/H OSEROFF
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 5 31717 UNIVERSITY OF ARIZONA **1623**
EOS INVESTIGATION
 01/03/1992 - 12/14/2001 FY98: \$732,000 Total: \$6,051,250
Prin. Invest.: P N SLATER
Tech. Officer: GSFC/L STUART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 98169 UNIVERSITY OF ARIZONA **1624**
NGST INTEGRATED SCIENCE INSTRUMENT MODULE (ISIM) CONCEPT STUDY
 06/24/1998 - 07/01/1999 FY98: \$170,000 Total: \$170,000
Prin. Invest.: J BECHTOLD, T P GREENE
Tech. Officer: GSFC/L R PURVES
CASE Category: 11 - ASTRONOMY

NAS 8 97309 UNIVERSITY OF ARIZONA **1625**
FABRICATION, TEST, AND DELIVERY OF PRIMARY MIRROR SYSTEM DEMONSTRATOR
 07/17/1997 - 02/16/1999 FY98: \$1,699,833 Total: \$1,964,783
Prin. Invest.: N AVAILABLE
Tech. Officer: MSFC/N AVAILABLE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 9 97224 UNIVERSITY OF ARIZONA **1626**
MARS FLIGHT DEMONSTRATION OXYGEN GENERATORY SUBSYS
 12/13/1997 - 08/31/1999 FY98: \$603,909 Total: \$603,909
Prin. Invest.: K R SRIDHAR
Tech. Officer: JSC/S BAIRD
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 2 329 UNIVERSITY OF ARIZONA **1627**
ANALYSIS OF TURBULENCE ENCOUNTERS USING AIRLINE DIGITAL FLIGHT RECORDS
 01/01/1985 - 01/31/1998 FY98: \$0 Total: \$183,852
Prin. Invest.: E K PARKS
Tech. Officer: ARC/R E BACH, ARC
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5239 UNIVERSITY OF ARIZONA **1628**
DEVELOPMENT OF THE COUPLED LEAFMOD/SART CANOPY- LEVEL RADIATIVE TRANSFER MODEL
 09/15/1997 - 07/31/1999 FY98: \$25,000 Total: \$50,000
Prin. Invest.: B D GANAPOL
Tech. Officer: ARC/D L PETERSON
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NCC 2 5262 UNIVERSITY OF ARIZONA **1629**
SOLID STATE PRESSURE SENSORS FOR AEROASSIST TECHNOLOGY APPLICATIONS
 03/25/1998 - 12/31/1998 FY98: \$94,898 Total: \$94,898
Prin. Invest.: K R SRIDHAR
Tech. Officer: ARC/J S SAULTE, ARC/D OLYNICK
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 452 UNIVERSITY OF ARIZONA **1630**
CONSTRUCTING SCIENTIFIC APPLICATIONS FROM HETEROGENEOUS RESOURCES
 02/08/1996 - 02/07/1997 FY98: -\$15 Total: \$25,005
Prin. Invest.: R SCHLICHTING
Tech. Officer: LERC/G J FOLLEN, LERC/D VANDREI
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 77 UNIVERSITY OF ARIZONA **1631**
INVEST. OF SIGNAL AND IMAGING PROCESSING TECHNIQUE FOR CLOUD DETECTION BY MICRO PULSE LIDARS
 08/01/1994 - 01/31/1998 FY98: \$0 Total: \$43,881
Prin. Invest.: J A REAGAN
Tech. Officer: GSFC/J D SPINHIRNE, GSFC/V S SCOTT
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 355 UNIVERSITY OF ARIZONA **1632**
PROPOSAL FOR GRADUATE STUDENT SUPPORT UNDER CCAST.NOW INCLUDES ADDITIONAL SUP
 08/04/1998 - 07/31/1999 FY98: \$119,322 Total: \$119,322
Prin. Invest.: E M AN
Tech. Officer: GSFC/A J NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 8 96 UNIVERSITY OF ARIZONA **1633**
COMPARISON OF STRUCTURE AND SEGREGATION IN ALLOYS
 06/07/1996 - 05/31/2000 FY98: \$113,000 Total: \$403,000
Prin. Invest.: D R POIRIER
Tech. Officer: MSFC/D HUBBARD
CASE Category: 49 - ENGINEERING, OTHER

NGT 10035 UNIVERSITY OF ARIZONA **1634**
UTILIZATION OF LOCAL PLANETARY RESOURCES
 12/22/1994 - 05/31/1998 FY98: \$0 Total: \$326,705
Prin. Invest.: R RAMOHILL, J LEWIS
Tech. Officer: HQ/G JOHNSON
CASE Category: 41 - AERONAUTICAL ENGR

NGT 30173 UNIVERSITY OF ARIZONA **1635**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/24/1993 - 02/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: C V HAYNES, J.R.
Tech. Officer: HQ/G ASRAR, HQ/D M BUTLER
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 30181 UNIVERSITY OF ARIZONA **1636**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/27/1993 - 02/30/1997 FY98: \$0 Total: \$65,500
Prin. Invest.: J RANGER-MOORE
Tech. Officer: HQ/G ASRAR, HQ/D M BUTLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30215 UNIVERSITY OF ARIZONA **1637**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/24/1993 - 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J A REAGAN
Tech. Officer: HQ/G ASRAR, HQ/D M BUTLER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 30269 UNIVERSITY OF ARIZONA **1638**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/29/1994 - 12/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: F C BALES
Tech. Officer: HQ/J S THEON, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NASA'S UNIVERSITY PROGRAM

ARIZONA

NGT 30303 UNIVERSITY OF ARIZONA **1639**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/10/1995 – 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: J W SHUTTLEWORTH
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30325 UNIVERSITY OF ARIZONA **1640**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/31/1995 – 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: B M HERMAN
Tech. Officer: HQ/R ASCHIFFER, HQ/G ASRAR
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 30336 UNIVERSITY OF ARIZONA **1641**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/16/1995 – 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: M YITAYEW
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 40006 UNIVERSITY OF ARIZONA **1642**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 11/29/1989 – 09/30/1997 FY98: \$0 Total: \$2,655,587
Prin. Invest.: E LEVY
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 51111 UNIVERSITY OF ARIZONA **1643**
GRADUATE STUDENT RESEARCHERS PROGRAM
 09/02/1993 – 06/30/1997 FY98: -\$683 Total: \$65,317
Prin. Invest.: J REAGAN
Tech. Officer: LARC/E J PRIOR
CASE Category: 45 – ELECTRICAL ENGR

NGT 51152 UNIVERSITY OF ARIZONA **1644**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/03/1993 – 07/31/1997 FY98: -\$39 Total: \$65,961
Prin. Invest.: C D IMPEY
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 – ASTRONOMY

NGT 51210 UNIVERSITY OF ARIZONA **1645**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/16/1994 – 08/14/1997 FY98: -\$6 Total: \$43,994
Prin. Invest.: R D SCHRIMPF, K F GALLOWAY
Tech. Officer: GSFC/G SOFFEN
CASE Category: 45 – ELECTRICAL ENGR

NGT 51219 UNIVERSITY OF ARIZONA **1646**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/07/1994 – 09/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: P N SLATER
Tech. Officer: HQ/A NOVOTNY
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 51289 UNIVERSITY OF ARIZONA **1647**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/28/1994 – 06/30/1997 FY98: -\$3 Total: \$65,997
Prin. Invest.: W A BOYNTON
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 – ASTRONOMY

NGT 51305 UNIVERSITY OF ARIZONA **1648**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/06/1994 – 01/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: J COCKE
Tech. Officer: HQ/D GLASCO
CASE Category: 11 – ASTRONOMY

NGT 51324 UNIVERSITY OF ARIZONA **1649**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/06/1994 – 07/31/1997 FY98: -\$61 Total: \$65,939
Prin. Invest.: U FINK
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 – ASTRONOMY

NGT 51327 UNIVERSITY OF ARIZONA **1650**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/19/1994 – 09/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: H J MELOSH
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 – ASTRONOMY

NGT 51328 UNIVERSITY OF ARIZONA **1651**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/19/1994 – 08/14/1997 FY98: -\$311 Total: \$65,689
Prin. Invest.: C WALKER
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 – ASTRONOMY

NGT 51637 UNIVERSITY OF ARIZONA **1652**
GRAD STUD RES PROG
 08/22/1996 – 09/30/1997 FY98: -\$6 Total: \$21,994
Prin. Invest.: F MELIA
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 – PHYSICS

NGT 51644 UNIVERSITY OF ARIZONA **1653**
GRAD STUDENT RESEARCH PROGRAM
 08/15/1996 – 06/30/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: M DRAKE
Tech. Officer: HQ/D HOLLAND
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 51646 UNIVERSITY OF ARIZONA **1654**
GRAD STUD RES PROG
 08/05/1996 – 08/14/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: J LUNINE
Tech. Officer: HQ/D HOLLAND
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 70403 UNIVERSITY OF ARIZONA **1655**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 09/29/1994 – 07/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: A ORTEGA
Tech. Officer: HQ/D K RUSSELL
CASE Category: 46 – MECHANICAL ENGR

NGT 1 52176 UNIVERSITY OF ARIZONA **1656**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 08/25/1997 – 07/31/1999 FY98: \$12,000 Total: \$22,000
Prin. Invest.: J A REAGAN, M A RUBIE
Tech. Officer: LARC/C A HOSTETLER, LARC/D M WINKER
CASE Category: 49 – ENGINEERING, OTHER

NGT 1 52206 UNIVERSITY OF ARIZONA **1657**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/14/1998 - 07/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: D M ISRAEL, H F FASEL
Tech. Officer: LARC/D J DUNHAM, LARC/B A SINGER
CASE Category: 41 - AERONAUTICAL ENGR

NGT 2 52224 UNIVERSITY OF ARIZONA **1658**
INVESTIGATION OF TURBULENCE MECHANISMS IN THE STRA TFORD
RAMP BOUNDARY LAYER FOR ... CARY BACHMAN
 07/24/1997 - 07/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: H F FASEL, C R BACHMAN
Tech. Officer: ARC/S S DAVIS
CASE Category: 41 - AERONAUTICAL ENGR

NGT 4 52408 UNIVERSITY OF ARIZONA **1659**
GSRP INVESTIGATION OF ACTUATORS USED IN ACTIVE FLO W CONTROL
 06/18/1998 - 07/01/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: H F FASEL, M LINNICK
Tech. Officer: SSC/K GUPTA, SSC/L S VOELKER
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 11 UNIVERSITY OF ARIZONA **1660**
THEORETICAL COMPARISON OF MICHELSON STELLAR INTERFEROMETER
AND DILUTE APERTURE TELESCOPE
 07/10/1995 - 08/31/1997 FY98: -\$1,862 Total: \$42,138
Prin. Invest.: A MARATHAY
Tech. Officer: GSFC/G A SOFFEN, GSFC/B D SEERY
CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 5 29 UNIVERSITY OF ARIZONA **1661**
PHYSICS OF HEAVY-ION INTERACTIONS IN POWER DEVICES AND ITS
APPLICATION TO SINGLE-EVENT GATERUPTURE
 07/16/1996 - 08/14/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: K GALLAWAY
Tech. Officer: GSFC/G SOFFEN
CASE Category: 11 - ASTRONOMY

NGT 5 41 UNIVERSITY OF ARIZONA **1662**
FINAL YEAR OF FUNDING FOR USRC PROGRAM AT UNIV FO RESEARCH
CENTER FOR UTILIZATION OF LOCAL PLANETAR
 06/19/1997 - 10/31/1997 FY98: \$0 Total: \$5,439
Prin. Invest.: K RAMOHALLI
Tech. Officer: GSFC/R AVANT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30013 UNIVERSITY OF ARIZONA **1663**
A STUDY OF 1993 USA FLOOD MECHANISM ON REGIONAL AN USING CLIM
MATE MODELS AND REMOTE-SENSING
 10/23/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: R E DICKSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30051 UNIVERSITY OF ARIZONA **1664**
A NEW SPHERICAL-SHELL RADIATIVE TRANSFER MODEL FOR LIMB
SCATTERING RADIANCES
 09/06/1997 - 08/31/1999 FY98: \$0 Total: \$22,000
Prin. Invest.: B M HERMAN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 3008: UNIVERSITY OF ARIZONA **1665**
THIRD YEA 3 FUNDING: "AREA-AVERAGE REPRESENTATION COVERS
BASED ON REMOTELY SENSED LAND COVERDATA"
 09/11/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J W SHUTTLEWORTH
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 3009: UNIVERSITY OF ARIZONA **1666**
FORECASTING CROP YIELD FROM THE CROP SPECIFIC WATE INTE-
GRATED WITH ARTEMIS SATELLITE DATA AND GIS/RE
 09/10/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: M YITAYEW
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 3014: UNIVERSITY OF ARIZONA **1667**
ECOSYSTEM DEGRADATION AND HOUSEHOLD VULNERABILITY IN THE
SEMI ARID REGION OF CHILE
 08/27/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: C HUTCHINSON
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 3014: UNIVERSITY OF ARIZONA **1668**
SYNTHETIC LAHAR HAZARD MODELING USING ORBITAL DEM DATA/NASA
EARTH SCI. SYSTEM_PROGRAM/STUDENT: KLI
 08/28/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: C E GLASS
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 4002: UNIVERSITY OF ARIZONA **1669**
NATIONAL ! PACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 12/30/1996 - 01/31/2001 FY98: \$475,000 Total: \$854,998
Prin. Invest.: E H LEVY
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 5001: UNIVERSITY OF ARIZONA **1670**
LARGE SCALE MHD ACCRETION ONTO MASSIVE BLACK HOLES FOR
NUCLEAR E ROAD LINE REGIONS
 07/14/1997 - 07/14/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: F MELIA
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 5004: UNIVERSITY OF ARIZONA **1671**
ACHROMAT C NULLING BEAM COMBINER FOR A PLANET
 07/17/1997 - 08/14/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: M LLOYD-HART
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 5011: UNIVERSITY OF ARIZONA **1672**
GRADUATE STUDENT RESEARCHERS PROGRAM - STUDENT: K
 09/04/1997 - 08/14/1999 FY98: \$11,000 Total: \$33,000
Prin. Invest.: J LUNINE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50132 UNIVERSITY OF ARIZONA **1673**
PLANETARY DYNAMOS AND THERMAL EVOLUTION: THE IMPO HEAT PRO-
DUCING ELEMENTS DISSOLVED IN TERRESTRIAL
 09/10/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: M J DRAKE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50190 UNIVERSITY OF ARIZONA **1674**
THEORETICAL & OBSERVATIONAL STUDY OF ORIGIN & EVOLUTION OF
PLANETS & PLANETARY SYSTEMS
 06/05/1998 - 08/14/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R H BROWN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

ARKANSAS

NAG 8 1284 ARKANSAS TECH UNIVERSITY **1675**
FOR RESEARCH "JOVE"
 01/21/1997 - 09/28/1999 FY98: \$37,000 Total: \$137,000
Prin. Invest.: M CONNOR, R NELSON, S JORDAN
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 98012 HENDRIX COLLEGE **1676**
NONINVASIVE DETECTION OF METALLIC IONS IN A HYBRID ROCKET
PLUME
 07/17/1998 - 11/16/1998 FY98: \$20,000 Total: \$20,000
Prin. Invest.: R W DUNN
Tech. Officer: SSC/B ST. CYR
CASE Category: 13 - PHYSICS

NAG10 181 UNIVERSITY OF ARKANSAS - LITTLE ROCK **1677**
SYNTHESIS & CHARACTERIZATION OF CROSS LINKABLE WATER BORNE
POLYCONJUGATED SYSTEMS
 12/12/1995 - 12/31/1998 FY98: \$6,000 Total: \$206,000
Prin. Invest.: T VISWANATHAN
Tech. Officer: KSC/C BRYAN
CASE Category: 12 - CHEMISTRY

NCC 5 260 UNIVERSITY OF ARKANSAS - LITTLE ROCK **1678**
ARKANSAS EPSCOR PROGRAM - THE ARKANSAS PLAN FOR EN HANCE-
MENT OF AERO-SPACE RESEARCH AND ECONOMIC
 01/07/1998 - 07/31/1999 FY98: \$1,000,000 Total: \$1,000,000
Prin. Invest.: M HUDSON
Tech. Officer: HQ/J DASCH
CASE Category: 11 - ASTRONOMY

NCCW 55 UNIVERSITY OF ARKANSAS - LITTLE ROCK **1679**
THE ARKANSAS PLAN FOR ENHANCEMENT OF AEROSPACE AND ECO-
NOMIC DEVELOPMENT
 08/18/1994 - 12/31/1997 FY98: \$0 Total: \$1,500,000
Prin. Invest.: G NORTHROP
Tech. Officer: HQ/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 40036 UNIVERSITY OF ARKANSAS - LITTLE ROCK **1680**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 04/17/1991 - 02/28/1997 FY98: \$0 Total: \$1,004,000
Prin. Invest.: G M NORTHROP
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51216 UNIVERSITY OF ARKANSAS - LITTLE ROCK **1681**
GRADUATE STUDENT RESEARCHERS PROGRAM
 05/19/1994 - 06/30/1997 FY98: -\$27 Total: \$43,973
Prin. Invest.: M K HUDSON
Tech. Officer: SSC/A JOYCE
CASE Category: 45 - ELECTRICAL ENGR

NGT 2 52242 UNIVERSITY OF ARKANSAS - LITTLE ROCK **1682**
VIRTUAL REALITY SIMULATION OF PHYSIOLOGICAL EFFECT S OF
MICROGRAVITY
 07/28/1998 - 07/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: C M COMPADRE
Tech. Officer: ARC/M D ROSS
CASE Category: 56 - MEDICL

NGT 5 40063 UNIVERSITY OF ARKANSAS - LITTLE ROCK **1683**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
AND FELLOWSHIP PROGRAM.
 03/24/1997 - 02/28/1999 FY98: \$256,250 Total: \$461,250
Prin. Invest.: G M NORTHROP
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT13 52707 UNIVERSITY OF ARKANSAS - LITTLE ROCK **1684**
A STUDY OF THE APPLICATION OF RAMEN SPECTROSCOPY TO ROCKET
DIAGNOSTICS
 05/23/1996 - 07/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: M K HUDSON
Tech. Officer: SSC/A JOYCE
CASE Category: 41 - AERONAUTICAL ENGR

NGT13 52718 UNIVERSITY OF ARKANSAS - LITTLE ROCK **1685**
DESIGN OF HIGH TEMPERATURE PROBE FOR MASS SPECTROSCOPY OF
HYBRID ROCKET PLUME
 07/13/1998 - 07/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: C MEADORS
Tech. Officer: SSC/A JOYCE
CASE Category: 41 - AERONAUTICAL ENGR

NGT10 52618 UNIVERSITY OF ARKANSAS - MONTICELLO **1686**
CAMERA BASED INSTRUMENTATION FOR MONITORING CLEANROOM
CONTAMINATION
 07/14/1998 - 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: A J ADAMS
Tech. Officer: KSC/P MOGAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4317 UNIV OF ARKANSAS MAIN CAMPUS-FAYETTEVILLE **1687**
NATURAL THERMOLUMINESCENCE OF ANTARCTIC METEORITES
 04/09/1997 - 02/28/1999 FY98: \$33,333 Total: \$83,333
Prin. Invest.: D H BENOIT
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4718 UNIV OF ARKANSAS MAIN CAMPUS-FAYETTEVILLE 1688
DELIVERING GEOGRAPHIC DECISION SUPPORT TECHNOLOGY ON-LINE
ACCESSTO DIGITAL GEODATA PRODUCTS
 09/05/1997 - 06/30/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: W LIMP
Tech. Officer: GSFC/A TUYAHOV
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3479 UNIV OF ARKANSAS MAIN CAMPUS-FAYETTEVILLE 1689
NATURAL THERMOLUMINESCENCE OF ANTARCTIC METEORITES AND
RELATED STUDIES
 03/27/1993 - 06/30/1997 FY98: \$0 Total: \$114,691
Prin. Invest.: D SEARS
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3519 UNIV OF ARKANSAS MAIN CAMPUS-FAYETTEVILLE 1690
CHEMICAL AND PHYSICAL STUDIES OF EXTRATERRESTRIAL MATERIALS
 04/09/1993 - 06/30/1997 FY98: \$0 Total: \$203,734
Prin. Invest.: D SEARS
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 2 52243 UNIV OF ARKANSAS MAIN CAMPUS-FAYETTEVILLE 1691
METHANOGENIC METABOLISM: IMPLICATIONS FOR MARS & EARLY
EARTH
 07/28/1998 - 08/14/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: T A KRAL
Tech. Officer: ARC/C P MCKAY
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

CALIFORNIA

NAG 1 1780 CALIFORNIA INSTITUTE OF TECHNOLOGY 1692
NEW NASA RESEARCH GRANT
 12/05/1995 - 12/04/1998 FY98: \$0 Total: \$82,958
Prin. Invest.: W G KNAUSS
Tech. Officer: LARC/T S GATES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1806 CALIFORNIA INSTITUTE OF TECHNOLOGY 1693
CHEMISTRY AND TRANSPORT IN A MULTI-DIMENSIONAL MODEL
 02/07/1996 - 12/31/1998 FY98: \$115,001 Total: \$340,001
Prin. Invest.: Y L YUNG
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1975 CALIFORNIA INSTITUTE OF TECHNOLOGY 1694
GLOBAL FAILURE MODES IN HIGH TEMPERATURE COMPOSITE STRUC-
TURES
 11/25/1997 - 11/15/1998 FY98: \$62,422 Total: \$62,422
Prin. Invest.: W G KNAUSS
Tech. Officer: GSFC/J H STARNES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1064 CALIFORNIA INSTITUTE OF TECHNOLOGY 1695
AIRBORNE SUBMILLIMETER SPECTROSCOPY
 07/19/1996 - 01/31/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: J ZMUIDZINAS
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 2 1087 CALIFORNIA INSTITUTE OF TECHNOLOGY 1696
APPLICATION OF DIGITAL PARTICLE IMAGE VELOCIMETRY & THERMOME-
TRY TO TURBULENT CAVITY FLOW
 09/27/1996 - 05/31/1998 FY98: \$25,000 Total: \$65,000
Prin. Invest.: M GHARIB
Tech. Officer: ARC/Y C CHO
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1131 CALIFORNIA INSTITUTE OF TECHNOLOGY 1697
AUTOMISTIC DESIGN & SIMULATIONS OF NANOSCALE MACHINES &
ASSEMBLY
 06/11/1997 - 03/31/1999 FY98: \$73,442 Total: \$173,442
Prin. Invest.: W A GODDARD
Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 1894 CALIFORNIA INSTITUTE OF TECHNOLOGY 1698
PRECISE MEASUREMENTS OF THE DENSITY AND CRITICAL PHENOMENA OF
HELIUM NEAR PHASE TRANSITIONS
 06/13/1996 - 06/12/2000 FY98: \$0 Total: \$44,000
Prin. Invest.: N YEH
Tech. Officer: LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 2166 CALIFORNIA INSTITUTE OF TECHNOLOGY 1699
INERTIAL EFFECTS IN SUSPENSION DYNAMICS
 05/08/1998 - 02/10/2002 FY98: \$100,000 Total: \$100,000
Prin. Invest.: J F BRADY
Tech. Officer: LERC/F P CHIARAMONTE
CASE Category: 46 - MECHANICAL ENGR

NAG 5 1454 CALIFORNIA INSTITUTE OF TECHNOLOGY 1700
LOW-ENERGY GAMMA-RAY EMISSION GALACTIC OBJECTS
 08/23/1990 - 01/31/1998 FY98: \$0 Total: \$884,352
Prin. Invest.: T A PRINCE, J M GRUNSFELD, P W GORHAM
Tech. Officer: GSFC/J P NORRIS, GSFC/D A KNIFFEN
CASE Category: 11 - ASTRONOMY

NAG 5 1614 CALIFORNIA INSTITUTE OF TECHNOLOGY 1701
EXTENSION OF THE WIDE FIELD I PLANETARY CAMERA POST-LAUNCH
SCIENCE AND ENGINEERING ACTIVITIES
 05/23/1991 - 09/30/1999 FY98: \$0 Total: \$12,647,480
Prin. Invest.: J A WESTPHAL
Tech. Officer: GSFC/S SOBIESKI
CASE Category: 11 - ASTRONOMY

NAG 5 2754 CALIFORNIA INSTITUTE OF TECHNOLOGY 1702
PULSARS: ORIGINS AND ENVIRONMENTAL IMPACT
 10/14/1994 - 02/28/1998 FY98: \$0 Total: \$313,100
Prin. Invest.: E S PHINNEY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2782 CALIFORNIA INSTITUTE OF TECHNOLOGY 1703
**VARIABILITY OF SOLAR UV IRRADIANCE RELATED TO BRIG HT MAGNETIC
 FEATURES OBSERVED IN CALL K-LINE**
 11/07/1994 - 05/14/1999 FY98: \$0 Total: \$236,199
Prin. Invest.: H ZIRIN
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2929 CALIFORNIA INSTITUTE OF TECHNOLOGY 1704
POSITION MEASUREMENT OF THE ECLIPSING PULSAR OAO.
 04/18/1995 - 04/30/1997 FY98: \$0 Total: \$4,036
Prin. Invest.: L BILDSTEN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2956 CALIFORNIA INSTITUTE OF TECHNOLOGY 1705
AN ACCURATE POSITION FOR GX 1+4
 06/06/1995 - 12/14/1996 FY98: \$0 Total: \$3,982
Prin. Invest.: F HARRISON
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 3119 CALIFORNIA INSTITUTE OF TECHNOLOGY 1706
**TESTING THE ACCRETION PARADIGM WITH THE BATSE PULSAR DATA-
 BASE**
 10/18/1995 - 10/31/1998 FY98: \$53,137 Total: \$165,513
Prin. Invest.: R W NELSON, T PRINCE
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3147 CALIFORNIA INSTITUTE OF TECHNOLOGY 1707
RADIO MONITORING OF HIGH ENERGY TRANSIENTS
 12/05/1995 - 12/14/1996 FY98: \$0 Total: \$21,062
Prin. Invest.: S R KULKARNI, D A FRAIL
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3178 CALIFORNIA INSTITUTE OF TECHNOLOGY 1708
A SEARCH FOR EGRET/RADIO PULSARS IN THE ETA CARINA REGION
 03/06/1996 - 03/14/1997 FY98: -\$16,536 Total: \$0
Prin. Invest.: V M KASPI
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3207 CALIFORNIA INSTITUTE OF TECHNOLOGY 1709
**CLUSTER OBSERVATIONS FOR COMBINED X-RAY AND SUNYAE V-ZEL'DO-
 VICH ESTIMATES OF PECULIAR VELOCITIES...**
 04/16/1996 - 10/31/1997 FY98: \$0 Total: \$10,560
Prin. Invest.: A LANGE
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 3239 CALIFORNIA INSTITUTE OF TECHNOLOGY 1710
**STUDIES OF PERIODIC AND APERIODIC VARIABILITY IN A CCRETING NEU-
 TRON STAR BINARYSYSTEMS**
 05/21/1996 - 04/30/1999 FY98: \$110,000 Total: \$330,000
Prin. Invest.: T A PRINCE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3296 CALIFORNIA INSTITUTE OF TECHNOLOGY 1711
**MULTI-WAVELENGTH OBSERVATIONS OF THE EXOTIC BINARY LSI + 61
 303**
 07/17/1996 - 01/31/1999 FY98: \$0 Total: \$5,000
Prin. Invest.: F HARRISON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3299 CALIFORNIA INSTITUTE OF TECHNOLOGY 1712
**OBSERVATION OF RADIO-LOUD BL LACERTAE OBJECTS AND SUPERLUM-
 INAL AGN; 2) CORRELATED OBSERVATIONS OF ..**
 08/09/1996 - 05/14/1999 FY98: \$0 Total: \$12,000
Prin. Invest.: R C LAMB
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3340 CALIFORNIA INSTITUTE OF TECHNOLOGY 1713
**STUDY OF VERY RAPID PHENOMENA IN SCO X-1; 2) SEARC HES FOR MIL-
 LISECOND PULSATIONS IN LOW-MASS ...**
 05/02/1996 - 10/31/1998 FY98: \$21,816 Total: \$70,839
Prin. Invest.: B VAUGHAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3465 CALIFORNIA INSTITUTE OF TECHNOLOGY 1714
BOLOMETRIC ARRAY DETECTORS FOR SPACEBORNE ASTRONOM
 10/30/1996 - 08/31/1998 FY98: \$119,460 Total: \$234,842
Prin. Invest.: A E LANGE
Tech. Officer: GSFC/D HOLLAND
CASE Category: 11 - ASTRONOMY

NAG 5 3466 CALIFORNIA INSTITUTE OF TECHNOLOGY 1715
INNOVATIVE RESEARCH PROGRAM. SILICON RADIATION DET
 01/31/1997 - 07/31/1999 FY98: \$121,823 Total: \$265,049
Prin. Invest.: R A MEWALDT
Tech. Officer: GSFC/D HOLLAND
CASE Category: 12 - CHEMISTRY

NAG 5 3560 CALIFORNIA INSTITUTE OF TECHNOLOGY 1716
ISO BLOCK GRANT SUPPORT
 01/15/1997 - 12/31/1998 FY98: \$0 Total: \$514,487
Prin. Invest.: B T SOIFER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3644 CALIFORNIA INSTITUTE OF TECHNOLOGY 1717
IMPACT AND COLLISIONAL PROCESSES IN THE SOLAR SYST
 02/12/1997 - 09/30/1998 FY98: \$200,000 Total: \$422,000
Prin. Invest.: T J AHRENS
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3733 CALIFORNIA INSTITUTE OF TECHNOLOGY 1718
SPECTROSCOPIC STUDIES OF PRE-BIOTIC CARBON CHEMIST
 02/25/1997 - 06/30/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: P A BLAKE
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3765 CALIFORNIA INSTITUTE OF TECHNOLOGY 1719
PLANETARY ORIGIN, EVOLUTION AND STRUCTURE
 02/11/1997 - 09/30/1998 FY98: \$89,278 Total: \$175,948
Prin. Invest.: D J STEVENSON
Tech. Officer: GSFC/P G RODGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3792 CALIFORNIA INSTITUTE OF TECHNOLOGY 1720
RADAR AND MICROWAVE ASTRONOMY
 03/12/1997 - 11/30/1998 FY98: \$50,183 Total: \$155,183
Prin. Invest.: D O MUHLEMAN
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 3821 CALIFORNIA INSTITUTE OF TECHNOLOGY 1721
VERY HIGH GAMMA-RAY STUDIES-COMPTON CYCLE 6
 01/14/1997 - 01/14/1999 FY98: \$0 Total: \$8,000
Prin. Invest.: R C LAMB
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3834 CALIFORNIA INSTITUTE OF TECHNOLOGY 1722
QUASAR EVOLUTION AND GRAVITATIONAL LENSES
 02/10/1997 - 02/14/1999 FY98: \$40,000 Total: \$80,000
Prin. Invest.: T KUNDIC
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3882 CALIFORNIA INSTITUTE OF TECHNOLOGY 1723
MEASUREMENTS OF THE SOLAR CORONA AND MAGNETIC FIELD MICRO-WAVE SPECTROSCOPY
 02/27/1997 - 11/30/1998 FY98: \$60,945 Total: \$24,055
Prin. Invest.: D E GARY
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 3911 CALIFORNIA INSTITUTE OF TECHNOLOGY 1724
MOLECULAR BEAM STUDIES OF STRATOSPHERIC PHOTOCHEMISTRY
 02/26/1997 - 12/31/1998 FY98: \$0 Total: \$71,735
Prin. Invest.: D OKUMURA
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3924 CALIFORNIA INSTITUTE OF TECHNOLOGY 1725
STUDIES OF ACCRETING BINARY PULSARS WITH BATSE
 02/19/1997 - 02/14/1998 FY98: \$0 Total: \$44,337
Prin. Invest.: T A PRINCE
Tech. Officer: GSFC/N P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 4022 CALIFORNIA INSTITUTE OF TECHNOLOGY 1726
PALEOENVIRONMENT ON MARS
 03/25/1997 - 09/30/1999 FY98: \$45,000 Total: \$90,000
Prin. Invest.: D YUNG
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4076 CALIFORNIA INSTITUTE OF TECHNOLOGY 1727
GEOCHEMICAL AND ISOTOPIC INVESTIGATIONS OF LUNAR A
 03/26/1997 - 11/14/1998 FY98: \$803,000 Total: \$1,606,000
Prin. Invest.: D J WASSERBURG
Tech. Officer: GSFC/J BOYCE
CASE Category: 12 - CHEMISTRY

NAG 5 4076 CALIFORNIA INSTITUTE OF TECHNOLOGY 1728
WIDE-FIELD IMAGING OF GALACTIC HALOS WITH A NEAR-IR TELESCOPE
 05/06/1997 - 09/30/1998 FY98: \$162,010 Total: \$316,100
Prin. Invest.: P E LANGE
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4081 CALIFORNIA INSTITUTE OF TECHNOLOGY 1729
BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF THE BACKGROUND ON ANGULAR SCALES OF 0.2 TO 40 DEGREES
 05/06/1997 - 12/31/1998 FY98: \$155,840 Total: \$304,872
Prin. Invest.: P E LANGE
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4083 CALIFORNIA INSTITUTE OF TECHNOLOGY 1730
DEVELOPMENT AND APPLICATION OF THE ION MICROPROBE ANALYTICAL MATERIALS
 03/10/1997 - 11/14/1998 FY98: \$370,000 Total: \$740,000
Prin. Invest.: D J WASSERBURG
Tech. Officer: GSFC/J BOYCE
CASE Category: 12 - CHEMISTRY

NAG 5 4083 CALIFORNIA INSTITUTE OF TECHNOLOGY 1731
RESEARCH IN GRAVITATIONAL ASTROPHYSICS
 03/10/1997 - 12/31/1998 FY98: \$29,000 Total: \$57,000
Prin. Invest.: P LINDBLOM
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4083 CALIFORNIA INSTITUTE OF TECHNOLOGY 1732
NOVEL, COMPACT UV/VIS & VUV COHERENT LIGHT SOURCES SPECTROSCOPY OF POTENTIAL DIB CARRIERS
 03/10/1997 - 03/14/1999 FY98: \$75,000 Total: \$150,000
Prin. Invest.: P A BLAKE *Prin. Invest.:* NONE
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 418 CALIFORNIA INSTITUTE OF TECHNOLOGY 1733
DYNAMICS OF PLANETARY ATMOSPHERES
 06/27/1997 - 11/30/1998 FY98: \$95,000 Total: \$185,000
Prin. Invest.: D P INGERSOLL
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4196 CALIFORNIA INSTITUTE OF TECHNOLOGY 1734
DEVELOPMENT OF A SUBMILLIMETER-WAVELENGTH IMMERSED
 03/17/1997 - 02/28/1998 FY98: \$0 Total: \$85,183
Prin. Invest.: D SERABYN
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4200 CALIFORNIA INSTITUTE OF TECHNOLOGY 1735
SUBMILLIMETER SPECTROSCOPY OF PLANETARY ATMOSPHERE
 03/15/1997 – 02/28/1998 FY98: \$0 Total: \$44,566
Prin. Invest.: D SERABYN
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 – ASTRONOMY

NAG 5 4203 CALIFORNIA INSTITUTE OF TECHNOLOGY 1736
A DISTRIBUTED OUT-OF-CORE TOOL FOR SPATIAL AND TEM HALOS FROM COSMOLOGICAL N-BODY SIMULATION DATA
 03/17/1997 – 02/28/1999 FY98: \$125,000 Total: \$250,000
Prin. Invest.: D L STERLING
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 4206 CALIFORNIA INSTITUTE OF TECHNOLOGY 1737
IMPACT CRATERING CALCULATIONS
 03/15/1997 – 09/30/1998 FY98: \$78,000 Total: \$156,000
Prin. Invest.: T J AHRENS
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4307 CALIFORNIA INSTITUTE OF TECHNOLOGY 1738
EXPERIMENTAL AND MODELING STUDIES OF THE CHEMISTRY
 04/01/1997 – 03/31/1999 FY98: \$25,000 Total: \$50,000
Prin. Invest.: D S BURNETT
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4318 CALIFORNIA INSTITUTE OF TECHNOLOGY 1739
EXPERIMENTAL STUDIES OF PHASE EQUILIBRIA OF METEOR INTERIORS
 04/04/1997 – 02/28/2001 FY98: \$112,500 Total: \$253,500
Prin. Invest.: D M STOLPER
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4319 CALIFORNIA INSTITUTE OF TECHNOLOGY 1740
EXPERIMENTAL AND ANALYTICAL STUDIES OF SOLAR SYSTE
 04/04/1997 – 01/31/1999 FY98: \$86,250 Total: \$201,250
Prin. Invest.: D S BURNETT
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4347 CALIFORNIA INSTITUTE OF TECHNOLOGY 1741
MICRO-PENETRATOR SEARCH FOR LAKE DEPOSITED MINERAL
 04/14/1997 – 03/31/1999 FY98: \$0 Total: \$20,000
Prin. Invest.: D C MURRAY
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4351 CALIFORNIA INSTITUTE OF TECHNOLOGY 1742
LOW-FREQUENCY GRAVITATIONAL-WAVE SOURCES
 04/14/1997 – 12/31/1997 FY98: \$0 Total: \$40,000
Prin. Invest.: D S THORNE
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 4378 CALIFORNIA INSTITUTE OF TECHNOLOGY 1743
MILLISECOND PULSARS AND PLANETARY SYSTEMS
 04/24/1997 – 09/30/1998 FY98: \$50,001 Total: \$100,001
Prin. Invest.: D R ULKARNI
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4383 CALIFORNIA INSTITUTE OF TECHNOLOGY 1744
A LABORATORY AND OBSERVATIONAL STUDY OF THE CHEMIC STELLAR NEBULAE
 05/06/1997 – 02/28/1999 FY98: \$26,667 Total: \$66,667
Prin. Invest.: P A BLAKE
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4437 CALIFORNIA INSTITUTE OF TECHNOLOGY 1745
PARTICIPATION OF D.O. MUHLEMAN AS A CO-INVESTIGATO OBSERVER LASER ALTIMETER (MOLA) TEAM
 04/28/1997 – 12/31/1998 FY98: \$104,880 Total: \$159,794
Prin. Invest.: D O MUHLEMAN
Tech. Officer: GSFC/D E SMITH
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 4599 CALIFORNIA INSTITUTE OF TECHNOLOGY 1746
MILLIMETER INTERFEROMETRY OF PROTO-PLANETARY DISKS
 06/06/1997 – 03/31/1999 FY98: \$59,500 Total: \$159,414
Prin. Invest.: D I SARGENT
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4611 CALIFORNIA INSTITUTE OF TECHNOLOGY 1747
MARS 96 PARTICIPATING SCIENTIST AND MARS OXIDANT
 05/20/1997 – 12/31/1997 FY98: \$0 Total: \$19,999
Prin. Invest.: D C MURRAY
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4614 CALIFORNIA INSTITUTE OF TECHNOLOGY 1748
ANALYSIS OF SYNTHETIC APERTURE RADAR IMAGES OF MA
 05/19/1997 – 02/28/1999 FY98: \$0 Total: \$52,979
Prin. Invest.: D O MUHLEMAN
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4627 CALIFORNIA INSTITUTE OF TECHNOLOGY 1749
LONG-TERM MONITORING OF THE UNIQUE BLACK-HOLE CAND
 05/21/1997 – 05/31/1998 FY98: \$0 Total: \$12,631
Prin. Invest.: B A VAUGHAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4657 CALIFORNIA INSTITUTE OF TECHNOLOGY 1750
CHEMISTRY AND DYNAMICS OF THE VENUS MESOSPHERE AND
 06/05/1997 – 08/31/1997 FY98: \$0 Total: \$20,000
Prin. Invest.: D YUNG
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 – ASTRONOMY

NAG 5 4692 CALIFORNIA INSTITUTE OF TECHNOLOGY 1751
LABORATORY STUDIES OF THE PHOTOPHYSICS AND PHOTOCHEMICAL REACTIONS OF POLYAROMATIC HYDROCARBONS
 06/20/1997 - 06/30/1998 FY98: \$0 Total: \$57,000
Prin. Invest.: P A BLAKE
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4715 CALIFORNIA INSTITUTE OF TECHNOLOGY 1752
ION MICROPROBE MEASUREMENTS OF C IN METAL IN PRIMER APPROACH TO CONSTRAINING CARBON RATIOS IN NEBULAR ENVIRONMENTS
 06/23/1997 - 09/30/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: D M STOLPER
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4773 CALIFORNIA INSTITUTE OF TECHNOLOGY 1753
APPLICATION OF STABLE ISOTOPE MEASUREMENTS TO THE DEDUCTION OF METEORITE HISTORY
 06/05/1997 - 11/30/1998 FY98: \$0 Total: \$79,944
Prin. Invest.: D EPSTEIN
Tech. Officer: GSFC/D F NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4890 CALIFORNIA INSTITUTE OF TECHNOLOGY 1754
QUASI-OPTICAL SIS MIXER DEVELOPMENT
 07/08/1997 - 03/31/2000 FY98: \$107,508 Total: \$288,474
Prin. Invest.: D S ZMUIDZINAS
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 5052 CALIFORNIA INSTITUTE OF TECHNOLOGY 1755
GLOBAL MAPPING OF THE INTERSTELLAR MEDIUM IN THE FAR-ULTRAVIOLET
 01/24/1996 - 12/31/1998 FY98: \$340,000 Total: \$1,016,089
Prin. Invest.: C MARTIN
Tech. Officer: GSFC/R H PLESS
CASE Category: 11 - ASTRONOMY

NAG 5 5067 CALIFORNIA INSTITUTE OF TECHNOLOGY 1756
PROGRAM TO STUDY BE-10 AND OTHER LIGHT ISOTOPES IN THE COSMIC RADIATION
 05/03/1996 - 11/30/1998 FY98: \$459,000 Total: \$1,127,462
Prin. Invest.: R A MEWALDT, E C STONE
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5128 CALIFORNIA INSTITUTE OF TECHNOLOGY 1757
HIGH ENERGY FOCUSING TELESCOPE (HEFT)
 06/19/1997 - 12/31/1998 FY98: \$362,700 Total: \$804,700
Prin. Invest.: J GRINDLEY
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 11 - ASTRONOMY

NAG 5 5152 CALIFORNIA INSTITUTE OF TECHNOLOGY 1758
BOLT - CALTECH CONTRIBUTION TO CONCEPT STUDY
 12/16/1997 - 05/16/1998 FY98: \$87,000 Total: \$87,000
Prin. Invest.: F HARRISON
Tech. Officer: GSFC/F NELSON
CASE Category: 11 - ASTRONOMY

NAG 5 5165 CALIFORNIA INSTITUTE OF TECHNOLOGY 1759
INTEGRATED-CIRCUIT READOUT FOR THE ACCESS SILICON ARRAY
 03/26/1998 - 12/31/1998 FY98: \$43,820 Total: \$43,820
Prin. Invest.: R A MEWALDT
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6071 CALIFORNIA INSTITUTE OF TECHNOLOGY 1760
HIGH RESOLUTION IMAGING OF SGR 1806-20
 07/28/1997 - 06/30/1998 FY98: \$0 Total: \$7,500
Prin. Invest.: S R KULKARNI
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6173 CALIFORNIA INSTITUTE OF TECHNOLOGY 1761
PRECISION SOLAR DISK PHOTOMETRY - A TOOL FOR UNDERSTANDING THE SUN'S LUMINOSITY
 08/26/1997 - 05/31/1999 FY98: \$18,541 Total: \$63,491
Prin. Invest.: D G LIBBRECHT
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6225 CALIFORNIA INSTITUTE OF TECHNOLOGY 1762
PALEOMAGNETIC AND ROCK CONSTRAINTS ON THE THERMAL METEORITE ALH84001
 08/25/1997 - 07/31/1998 FY98: \$0 Total: \$65,000
Prin. Invest.: J L KIRSCHVINK
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6253 CALIFORNIA INSTITUTE OF TECHNOLOGY 1763
PHOTOCHEMICAL STUDIES OF CHEMISTRY IN OUTER SOLAR SYSTEM
 08/21/1997 - 12/31/1998 FY98: \$80,000 Total: \$155,000
Prin. Invest.: D L YUNG
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6402 CALIFORNIA INSTITUTE OF TECHNOLOGY 1764
THE ORIGIN AND EVOLUTION OF NEUTRON STARS (LTSA)
 10/15/1997 - 04/30/1998 FY98: \$70,000 Total: \$70,000
Prin. Invest.: S KULKARNI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6473 CALIFORNIA INSTITUTE OF TECHNOLOGY 1765
US PARTICIPATION IN PLANCK, HFI PORTION
 11/18/1997 - 07/31/1999 FY98: \$633,000 Total: \$633,000
Prin. Invest.: D E LANGE
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 6416 CALIFORNIA INSTITUTE OF TECHNOLOGY 1766
SUBMILLIMETER WAVELENGTH SPECTROSCOPY AND IMAGING OF THE PLANETS
 01/07/1998 - 02/28/1999 FY98: \$46,370 Total: \$46,370
Prin. Invest.: E SERABYN
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 6840 CALIFORNIA INSTITUTE OF TECHNOLOGY 1767
LOW-FREQUENCY GRAVITATIONAL-WAVE SOURCES AND THEIR IMPLICATIONS FOR FUTURE NASA MISSIONS
 01/09/1998 – 12/31/1998 FY98: \$68,000 Total: \$68,000
Prin. Invest.: K THORNE
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 6912 CALIFORNIA INSTITUTE OF TECHNOLOGY 1768
MO&DA OF THE ADVANCED COMPOSITION EXPLORER MISSION
 01/30/1998 – 01/31/1999 FY98: \$4,406,040 Total: \$4,406,040
Prin. Invest.: E STONE
Tech. Officer: GSFC/B WORRALL
CASE Category: 11 – ASTRONOMY

NAG 5 6941 CALIFORNIA INSTITUTE OF TECHNOLOGY 1769
THE ACCRETION HISTORY OF EXTRATERRESTRIAL MATTER OVER GEOLOGIC TIME FROM THE SEAFLOOR SEDIMENTS
 02/06/1998 – 03/31/1999 FY98: \$44,143 Total: \$44,143
Prin. Invest.: K A FARLEY
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 6955 CALIFORNIA INSTITUTE OF TECHNOLOGY 1770
ASCA PROPOSAL – OBSERVATIONS OF THE CRAB-LIKE PULSAR PSR B1509-58
 02/06/1998 – 01/31/1999 FY98: \$16,200 Total: \$16,200
Prin. Invest.: S R KULKARNI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 6981 CALIFORNIA INSTITUTE OF TECHNOLOGY 1771
BROWN DWARFS: DETECTION AND DETAILED STUDIES
 02/06/1998 – 02/14/1999 FY98: \$63,000 Total: \$63,000
Prin. Invest.: S KULKARNI
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7007 CALIFORNIA INSTITUTE OF TECHNOLOGY 1772
BLACK HOLE ASTROPHYSICS – ATP
 02/11/1998 – 02/14/1999 FY98: \$89,781 Total: \$89,781
Prin. Invest.: R BLANDFORD
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7008 CALIFORNIA INSTITUTE OF TECHNOLOGY 1773
SPECTRAL ENERGY DISTRIBUTION OF T TAURI DISKS – ATP
 02/18/1998 – 02/28/1999 FY98: \$32,438 Total: \$32,438
Prin. Invest.: P M GOLDBREICH
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7034 CALIFORNIA INSTITUTE OF TECHNOLOGY 1774
ORIGIN AND EVOLUTION OF THE SPINS AND FIELDS OF WHITE DWARFS, NEUTRON STARS AND BLACK HOLES – ATP
 02/18/1998 – 02/14/1999 FY98: \$79,414 Total: \$79,414
Prin. Invest.: E PHINNEY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7081 CALIFORNIA INSTITUTE OF TECHNOLOGY 1775
ADVANCED SPACE PARTICLE ANALYSIS SYSTEM
 03/10/1998 – 03/31/1999 FY98: \$74,321 Total: \$74,321
Prin. Invest.: J BEAUCHAMP
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 11 – ASTRONOMY

NAG 5 7166 CALIFORNIA INSTITUTE OF TECHNOLOGY 1776
HIGHER FLUX FROM THE YOUNG SUN AS AN EXPLANATION FOR WARM TEMPERATURES FOR EARLY EARTH AND MARS
 03/16/1998 – 04/14/1999 FY98: \$41,603 Total: \$41,603
Prin. Invest.: I SACKMANN
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 7229 CALIFORNIA INSTITUTE OF TECHNOLOGY 1777
XTE PROPOSAL – TORQUE-LUMINOSITY STUDIES OF THE ACCRETING PULSAR CXOU J0108-5409
 04/14/1998 – 04/14/1999 FY98: \$3,300 Total: \$3,300
Prin. Invest.: T A PRINCE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7230 CALIFORNIA INSTITUTE OF TECHNOLOGY 1778
STUDY OF TROPOSPHERIC OZONE AND UV REFLECTIVITY USING TOMS DATA
 04/16/1998 – 04/14/1999 FY98: \$79,000 Total: \$79,000
Prin. Invest.: Y L YUNG
Tech. Officer: GSFC/E HILSENATH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7268 CALIFORNIA INSTITUTE OF TECHNOLOGY 1779
STUDIES OF ACCRETING BINARY PULSARS WITH BATSE
 04/15/1998 – 04/14/1999 FY98: \$12,000 Total: \$12,000
Prin. Invest.: B VAUGHAN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 7422 CALIFORNIA INSTITUTE OF TECHNOLOGY 1780
XTE PROPOSAL (30182) SIMULTANEOUS X-RAY/INFRARED/RADIO OBSERVATIONS OF GRS1915+105
 06/02/1998 – 05/31/1999 FY98: \$8,266 Total: \$8,266
Prin. Invest.: S S EIKENBERRY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7501 CALIFORNIA INSTITUTE OF TECHNOLOGY 1781
THE STELLAR POPULATIONS EMERGING FROM MOLECULAR CLOUDS AND THE SURVIVAL TIMES OF PROTOPLANETS
 06/02/1998 – 05/31/2000 FY98: \$15,000 Total: \$15,000
Prin. Invest.: D HILLENBRAND
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7527 CALIFORNIA INSTITUTE OF TECHNOLOGY 1782
DEVELOPMENT OF AN AIRCRAFT-BORNE INSTRUMENT FOR MEASUREMENT OF NITRIC ACID
 06/09/1998 – 12/31/1999 FY98: \$232,624 Total: \$232,624
Prin. Invest.: P WENNBERG
Tech. Officer: GSFC/P DECOLA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7680 CALIFORNIA INSTITUTE OF TECHNOLOGY 1783
VARIABILITY OF CLOUDS OVER A SOLAR CYCLE YEAR 1 OF A 3 YEAR GRANT
 09/17/1998 - 09/30/1999 FY98: \$77,878 Total: \$77,878
Prin. Invest.: Y L YUNG
Tech. Officer: GSFC/M CHOU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1182 CALIFORNIA INSTITUTE OF TECHNOLOGY 1784
A/C CALORIMETRY AND THERMOPHYSICAL PROPERTIES OF BULK GLASS METALLIC LIQUIDS
 11/09/1995 - 10/31/1998 FY98: \$165,000 Total: \$525,000
Prin. Invest.: W JOHNSON
Tech. Officer: MSFC/T DCLOACH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1237 CALIFORNIA INSTITUTE OF TECHNOLOGY 1785
DISPERSION MICROSTRUCTURE AND RHEOLOGY IN CERAMICS PROCESSING
 04/22/1996 - 04/21/2000 FY98: \$81,006 Total: \$193,506
Prin. Invest.: D F BRADY
Tech. Officer: MSFC/C R TALLEY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 861 CALIFORNIA INSTITUTE OF TECHNOLOGY 1786
SUESS UREY DISCOVERY MISSION
 02/22/1996 - 05/24/1998 FY98: \$0 Total: \$69,000
Prin. Invest.: D S BARNETT
Tech. Officer: JSC/E STANSBERRY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 9 1013 CALIFORNIA INSTITUTE OF TECHNOLOGY 1787
GENESIS DISCOVERY MISSION PHASE B
 05/13/1998 - 05/12/1999 FY98: \$164,917 Total: \$164,917
Prin. Invest.: D S BURNETT
Tech. Officer: JSC/E K STANSBERRY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 107 CALIFORNIA INSTITUTE OF TECHNOLOGY 1788
ONOMY
 11/01/1980 - 09/30/1997 FY98: \$0 Total: \$2,091,148
Prin. Invest.: T G PHILLIPS
Tech. Officer: HQ/F C GILLET, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 1955 CALIFORNIA INSTITUTE OF TECHNOLOGY 1789
NAGW-1955/LASER SPECTROSCOPIC STUDIES OF CARBONACEOUS CLUSTERS AND ULTRAFINE PARTICLES
 04/27/1990 - 12/31/1996 FY98: \$0 Total: \$251,125
Prin. Invest.: G A BLAKE
Tech. Officer: HQ/J D RUMMEL
CASE Category: 12 - CHEMISTRY

NAGW 1972 CALIFORNIA INSTITUTE OF TECHNOLOGY 1790
RESEARCH IN SOLAR MAGNETISM & SOLAR ACTIVITY
 02/15/1990 - 12/31/1998 FY98: \$0 Total: \$2,272,805
Prin. Invest.: H ZIRIN
Tech. Officer: HQ/J D BOHLIN, HQ/S KANE
CASE Category: 13 - PHYSICS

NAGW 2811 CALIFORNIA INSTITUTE OF TECHNOLOGY 1791
A LABORATORY AND ASTROPHYSICAL STUDY OF DRIVEN INFERRARED EMISSION FROM PAH AND PAH CLUSTERS
 01/02/1992 - 11/30/1996 FY98: \$0 Total: \$209,500
Prin. Invest.: G A BLAKE
Tech. Officer: HQ/L J CAROFF
CASE Category: 11 - ASTRONOMY

NAGW 3011 CALIFORNIA INSTITUTE OF TECHNOLOGY 1792
ANALYSIS OF SYNTHETIC APERTURE RADAR IMAGES OF MARS, VENUS AND MERCURY
 03/20/1992 - 02/28/1997 FY98: \$0 Total: \$201,000
Prin. Invest.: D O MUHLEMAN
Tech. Officer: HQ/J M BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3217 CALIFORNIA INSTITUTE OF TECHNOLOGY 1793
NAGW-3217/CALTECH/DEVELOPMENT AND APPLICATION OF THE ION MICROSCOPE FOR ANALYSIS OF EXTRATERRESTRIAL
 12/10/1992 - 11/14/1997 FY98: \$0 Total: \$1,486,000
Prin. Invest.: G J WASSERBURG, NONE
Tech. Officer: HQ/G C BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3337 CALIFORNIA INSTITUTE OF TECHNOLOGY 1794
NAGW-3337/CA INST. TECHNOLOGY/GEOCHEMICAL & ISOTOPIC INVESTIGATIONS OF LUNAR & PLANETARY MATERIALS
 01/26/1993 - 10/31/1996 FY98: \$0 Total: \$3,262,400
Prin. Invest.: G J WASSERBURG
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3592 CALIFORNIA INSTITUTE OF TECHNOLOGY 1795
EXPER. AND ANAL. STUD. OF SOLAR SYSTEM CHEMISTRY
 05/14/1993 - 01/31/1998 FY98: \$0 Total: \$470,454
Prin. Invest.: D S BURNETT
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3883 CALIFORNIA INSTITUTE OF TECHNOLOGY 1796
NAGW-3883/B CALIF. INST. OF TECH. "APPL. OF STABLE ISOT. MEASUREMENT TO THE STUDY OF THE ORIGIN.."
 03/08/1994 - 09/30/1997 FY98: \$0 Total: \$318,102
Prin. Invest.: S EPSTEIN
Tech. Officer: HQ/J BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3184 CALIFORNIA INSTITUTE OF TECHNOLOGY 1797
STUDIES OF IMAGING TECHNIQUES FOR HIGH-RESOLUTION IMAGING OF SOLAR HARD X-RAYS AND GAMMA-RAYS
 06/07/1994 - 12/31/1997 FY98: \$0 Total: \$140,426
Prin. Invest.: G J HURFORD
Tech. Officer: HQ/W J WAGNER, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4330 CALIFORNIA INSTITUTE OF TECHNOLOGY 1798
MILLIMETER INTERFEROMETRY OF PROTO-PLANETARY DISKS
 06/03/1994 - 03/31/1998 FY98: \$0 Total: \$422,033
Prin. Invest.: A SARGENT
Tech. Officer: HQ/P ROGERS
CASE Category: 11 - ASTRONOMY

NAGW 4058 CALIFORNIA INSTITUTE OF TECHNOLOGY 1799
**"PRECISION SOLAR DISK PHOTOMETRY- A TOOL FOR UNDERSTANDING
 CHANGES IN THE SUN'S LUMINOSITY"**
 06/17/1994 - 04/30/1997 FY98: \$0 Total: \$106,248
Prin. Invest.: K G LIBBRECHT *Prin. Invest.:* NONE
Tech. Officer: HQ/W J WAGNER, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4182 CALIFORNIA INSTITUTE OF TECHNOLOGY 1800
**INSTRUMENTS FOR THE DISCOVERY SOLAR WIND SAMPLE RETURN MIS-
 SION**
 10/26/1994 - 06/30/1998 FY98: \$0 Total: \$395,000
Prin. Invest.: D S BURNETT, NONE
Tech. Officer: HQ/T KOSTIUK
CASE Category: 11 - ASTRONOMY

NAGW 4193 CALIFORNIA INSTITUTE OF TECHNOLOGY 1801
**MILLIMETER APERTURE SYNTHESIS POLARIMETRY AND THE FORMATION
 AND EVOLUTION OF PROTOPLANETARY DISK**
 11/04/1994 - 09/30/1996 FY98: \$0 Total: \$124,078
Prin. Invest.: J E CARLSTROM
Tech. Officer: HQ/P ROGERS
CASE Category: 11 - ASTRONOMY

NAGW 4562 CALIFORNIA INSTITUTE OF TECHNOLOGY 1802
PLANETARY RADAR ASTRONOMY USING THE VERY LARGE ARRAY
 06/06/1995 - 11/30/1997 FY98: \$0 Total: \$210,000
Prin. Invest.: D MUHLEMAN
Tech. Officer: HQ/J RAHE
CASE Category: 11 - ASTRONOMY

NAGW 4838 CALIFORNIA INSTITUTE OF TECHNOLOGY 1803
FAR ULTRAVIOLET FABRY-PEROT SPECTROSCOPY
 10/06/1995 - 10/31/1996 FY98: \$0 Total: \$39,000
Prin. Invest.: C MARTIN
Tech. Officer: HQ/R V STACHNIK
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 5096 CALIFORNIA INSTITUTE OF TECHNOLOGY 1804
RECORD OF EXTRATERRESTRIAL HE FALLOUT
 06/24/1996 - 06/30/1997 FY98: \$0 Total: \$49,974
Prin. Invest.: K FARLEY
Tech. Officer: HQ/H BRINTON, HQ/J RAHE
CASE Category: 11 - ASTRONOMY

NAS 3 27263 CALIFORNIA INSTITUTE OF TECHNOLOGY 1805
SOLUTE NUCLEATION & GROWTH IN SUPERCRITICAL FLUID MIXTURES
 08/18/1994 - 04/17/1999 FY98: \$0 Total: \$174,958
Prin. Invest.: G T SMEDLEY, G WILEMSKI
Tech. Officer: LERC/G A ZIMMERK
CASE Category: 43 - CHEMICAL ENGR

NAS 5 32626 CALIFORNIA INSTITUTE OF TECHNOLOGY 1806
**PHASE C/D DESIGN & DEVELOPMENT OF THE ADVANCED COMPOSITION
 EXPLORER (ACE) SCIENCE PAYLOAD**
 01/03/1994 - 09/30/1998 FY98: -\$355,000 Total: \$36,903,660
Prin. Invest.: E STONE
Tech. Officer: GSFC/J LAUDADIO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 5 32642 CALIFORNIA INSTITUTE OF TECHNOLOGY 1807
HIGH RESOLUTION IRAS MAPS OF THE GALAXY AT 60 & 100 MICRONS
 09/20/1994 - 10/19/1998 FY98: \$0 Total: \$232,606
Prin. Invest.: T A PRINCE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAS 5 38097 CALIFORNIA INSTITUTE OF TECHNOLOGY 1808
**JOINT ULTRAVIOLET NIGHTSKY OBSERVER (JUNO) FOR SMALL EXPLOR-
 ERS (SMEX) PROGRAM**
 12/17/1993 - 09/30/1996 FY98: \$0 Total: \$749,000
Prin. Invest.: C MARTIN
Tech. Officer: GSFC/R ALEMAN
CASE Category: 11 - ASTRONOMY

NAS 5 98034 CALIFORNIA INSTITUTE OF TECHNOLOGY 1809
**PHASE A STUDY FOR GALE X (GALAXY EVOLUTION EXPLORER) INVES-
 TIGATION**
 12/05/1997 - 09/30/2004 FY98: \$4,413,000 Total: \$4,413,000
Prin. Invest.: C MARTIN
Tech. Officer: GSFC/F SNOW
CASE Category: 11 - ASTRONOMY

NAS 5 98152 CALIFORNIA INSTITUTE OF TECHNOLOGY 1810
CONSTELLATION X-RAY MISSION
 06/22/1998 - 12/31/1998 FY98: \$215,000 Total: \$215,000
Prin. Invest.: F HARRISON
Tech. Officer: GSFC/J GRADY
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 954 CALIFORNIA INSTITUTE OF TECHNOLOGY 1811
PETAFLIPS WORKSHOPS
 06/07/1996 - 03/31/1999 FY98: \$0 Total: \$302,000
Prin. Invest.: P MASSINA
Tech. Officer: ARC/J B HOFMAN, ARC/W J FEIEREISEN
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5271 CALIFORNIA INSTITUTE OF TECHNOLOGY 1812
**WAVELET METHODS FOR RAPID, HIERARCHICAL INTERROGATION OF
 LARGE CFD DATA SETS**
 06/25/1998 - 06/14/1999 FY98: \$51,116 Total: \$51,116
Prin. Invest.: P SCHRODER
Tech. Officer: ARC/M J GERALD-YAMASAKI, ARC/A VAZUIRI
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 242 CALIFORNIA INSTITUTE OF TECHNOLOGY 1813
TOPOGRAPHIC RESPONSE TO THE YAKUTAT BLOCK COLLISION
 10/02/1997 - 09/30/1998 FY98: \$11,957 Total: \$11,957
Prin. Invest.: J STOCK
Tech. Officer: GSFC/J M SAUBER
CASE Category: 32 - GEOLOGICAL SCIENCE

NCC 8 119 CALIFORNIA INSTITUTE OF TECHNOLOGY 1814
**R/S PHYSICAL PROPERTIES AND PROCESSING OF UNDER-COOLED
 METALLIC GLASS FORMING LIQUIDS**
 11/11/1996 - 10/31/1998 FY98: \$160,000 Total: \$320,000
Prin. Invest.: W L JOHNSON *Prin. Invest.:* NONE
Tech. Officer: MSFC/A C DELOACH
CASE Category: 49 - ENGINEERING, OTHER

NCCW 62 CALIFORNIA INSTITUTE OF TECHNOLOGY **1815**
KECK OBSERVATORY COLLABORATION
 09/30/1994 - 09/30/2000 FY98: \$3,400,000 Total: \$30,600,000
Prin. Invest.: E STONE
Tech. Officer: HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NGT 30329 CALIFORNIA INSTITUTE OF TECHNOLOGY **1816**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/07/1995 - 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: Y L YUNG
Tech. Officer: HQ/R A SCHIFFER, HQ/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 51156 CALIFORNIA INSTITUTE OF TECHNOLOGY **1817**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/04/1993 - 09/30/1996 FY98: -\$2,000 Total: \$64,000
Prin. Invest.: R MEWALDT
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 - PHYSICS

NGT 60009 CALIFORNIA INSTITUTE OF TECHNOLOGY **1818**
NASA SUMMER UNDERGRADUATE RESEARCH PROGRAM
 03/09/1993 - 07/31/1997 FY98: \$0 Total: \$140,000
Prin. Invest.: C MERKEL
Tech. Officer: HQ/A S MCGEE, HQ/E T SCHWARTZ
CASE Category: 49 - ENGINEERING, OTHER

NGT 2 52240 CALIFORNIA INSTITUTE OF TECHNOLOGY **1819**
ANNUAL TELLURIDE WORKSHOP ON NEUROMORPHIC ENGINEERING
 05/01/1998 - 09/30/1998 FY98: \$30,000 Total: \$30,000
Prin. Invest.: C KOCH
Tech. Officer: ARC/S F ZPRNETZER, ARC/A R GROSS
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 35 CALIFORNIA INSTITUTE OF TECHNOLOGY **1820**
DEVELOPMENT OF A BROADBAND SUBMILLIMETER SPECTROMETER
 07/31/1996 - 09/30/1998 FY98: \$11,000 Total: \$33,000
Prin. Invest.: T PHILLIPS
Tech. Officer: GSFC/G SOFFEN
CASE Category: 13 - PHYSICS

NGT 5 30068 CALIFORNIA INSTITUTE OF TECHNOLOGY **1821**
EL NINO PREDICTABILITY: CAN OBSERVATIONS BE USED TO MODEL
 09/09/1997 - 06/30/2000 FY98: \$22,000 Total: \$44,000
Prin. Invest.: Y YUNG
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30096 CALIFORNIA INSTITUTE OF TECHNOLOGY **1822**
THE ISOTOPIC COMPOSITION OF STRATOSPHERIC AND UPPER ATMOSPHERIC AS A TRACER OF TROPOSPHERE-STRATOSPHERE EXCHANGE
 09/10/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: Y L YUNG
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30131 CALIFORNIA INSTITUTE OF TECHNOLOGY **1823**
SAR INTERFEROMETRIC CONSTRAINTS ON ICE CAP MASS BALANCE AND DYNAMICS IN ICELAND/STUDENT: GERBI
 09/04/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M SIMONS
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30138 CALIFORNIA INSTITUTE OF TECHNOLOGY **1824**
CRUCIAL DESERTIFICATION PROCESSES FOR MONITORING ARID LANDS
 08/27/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: B C MURRAY, OKIN, NONE
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50046 CALIFORNIA INSTITUTE OF TECHNOLOGY **1825**
DEVELOPMENT OF MULTILAYER FOCUSSED TELESCOPE FOR THE HARD X-RAY BAND
 11/25/1996 - 09/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: F A HARRISON
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 13 - PHYSICS

NGT 5 50045 CALIFORNIA INSTITUTE OF TECHNOLOGY **1826**
INTEGRAL FIELD SPECTROSCOPY OF ULTRALUMINOUS INFRARED
 08/05/1997 - 09/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: B SOIFER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50125 CALIFORNIA INSTITUTE OF TECHNOLOGY **1827**
EFFECTS OF THE UNIQUE MARTIAN ENVIRONMENT ON SURFACE MINERAL APPROACH
 09/09/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: P M MURRAY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50144 CALIFORNIA INSTITUTE OF TECHNOLOGY **1828**
INTEGRATING SCIENTIFIC GPS DATA AND FINITE ELEMENT MODELS OF THE L.A. BASIN
 09/11/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: M GURNIS
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50100 CALIFORNIA INSTITUTE OF TECHNOLOGY **1829**
LABORATORY STUDY OF REACTIONS IMPORTANT IN THE FORMATION OF TROPOSPHERIC OZONE AND THE DEVELOPMENT
 06/24/1997 - 09/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M OKUMURA
Tech. Officer: HQ/A NURRIDIN
CASE Category: 12 - CHEMISTRY

NGT 5 50115 CALIFORNIA INSTITUTE OF TECHNOLOGY **1830**
FROM EARTH TO ORBIT: UTILIZING THE DIGITIZED PALOMAR SKY SURVEY IN NASA MISSIONS (STUDENT: ROY GAL)
 07/22/1993 - 07/31/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: S G DJORGOVSKI
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NGT 5 60003 CALIFORNIA INSTITUTE OF TECHNOLOGY **1831**
A SUMMER RESEARCH PROGRAM OF NASA SUMMER FACULTY F
 09/23/1997 – 06/30/1999 FY98: \$339,830 Total: \$719,935
Prin. Invest.: A ALBEE
Tech. Officer: GSFC/S MCGEE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 8 52820 CALIFORNIA INSTITUTE OF TECHNOLOGY **1832**
GRAD STUDENT RESEARCHER PROGRAM
 07/31/1996 – 06/30/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: L E GREGO
Tech. Officer: MSFC/M JOY
CASE Category: 45 – ELECTRICAL ENGR

NSG 1483 CALIFORNIA INSTITUTE OF TECHNOLOGY **1833**
LOW SPEED IMPACT DAMAGE ON COMPOSITE MATERIALS
 01/04/1978 – 11/14/1997 FY98: \$0 Total: \$1,160,074
Prin. Invest.: W G KNAUSS, C D BABCOCK
Tech. Officer: LARC/J H STARNES
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1024 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS **1834**
MULTICRITERIA GAIN TUNING FOR ROTORCRAFT FLIGHT CONTROLS
 01/29/1996 – 09/30/1997 FY98: \$0 Total: \$43,791
Prin. Invest.: D BIEZAD
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1092 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS **1835**
DESIGN AIRCRAFT FLIGHT CONTROL SYSTEMS USING THE CONDUIT DEVELOPMENT PROGRAM
 11/21/1996 – 09/30/1999 FY98: \$0 Total: \$50,978
Prin. Invest.: D BIEZAD
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1169 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS **1836**
CONDUIT SPECIFICATIONS DEVELOPMENT FOR CRUISE FLIGHT OPERATIONS
 12/03/1997 – 01/31/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: D J BIEZAD
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 4 101 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS **1837**
CAL POLY THRUST VECTOR GRADUATE RESEARCH AWARD
 05/18/1995 – 05/16/1999 FY98: \$55,000 Total: \$243,968
Prin. Invest.: T W CARPENTER
Tech. Officer: DFRC/R RAY, DFRC/A H BOWERS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 4 102 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS **1838**
CAL POLY THRUST VECTOR UNDERGRADUATE RESEARCH
 05/19/1995 – 05/16/1999 FY98: \$20,000 Total: \$264,478
Prin. Invest.: T W CARPENTER
Tech. Officer: DFRC/R RAY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 4 138 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS **1839**
MODAL ANALYSIS OF EMBEDDED PASSIVE DAMPING MATERIALS IN COMPOSITE PLATES
 07/25/1997 – 07/24/1998 FY98: -\$29 Total: \$19,971
Prin. Invest.: F KOLKAILAH
Tech. Officer: DFRC/M W KEHOE
CASE Category: 41 – AERONAUTICAL ENGR

NAG 4 142 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS **1840**
K-12 TEACHER EDUCATION WITH NASA AERONAUTICS THEME K-12 TEACHER ED WITH NASA
 12/11/1997 – 09/30/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: D BIEZAD
Tech. Officer: DFRC/L DUKE
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 924 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS **1841**
SONIC WAVE ATMOSPHERIC PROPAGATION
 08/28/1995 – 08/31/1997 FY98: \$120 Total: \$43,991
Prin. Invest.: R M CUMMINGS, M D BAKER
Tech. Officer: ARC/E L TU
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 2 983 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS **1842**
A DESIGN-INTERACTIVE HANDLING QUALITIES EVALUATION TOOL WITH APPLICATIONS TO ROTORCRAFT FLIGHT CONTROL
 03/27/1997 – 01/31/1999 FY98: \$60,969 Total: \$130,969
Prin. Invest.: D BIEZAD
Tech. Officer: ARC/M B TISCHLER
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 5279 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS **1843**
INTELLIGENT TOOLS FOR MEASURING & IMPROVING OVERSEAS GRID QUALITY
 07/17/1998 – 12/31/1998 FY98: \$24,827 Total: \$24,827
Prin. Invest.: R M CUMMINGS
Tech. Officer: ARC/Y M RIZK
CASE Category: 41 – AERONAUTICAL ENGR

NGT 10012 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS **1844**
MULTIDISCIPLINARY DESIGN AND ANALYSIS FELLOWSHIP PROGRAM
 10/04/1993 – 09/30/1998 FY98: \$0 Total: \$664,903
Prin. Invest.: R M CUMMINGS, H J FREEMAN
Tech. Officer: HQ/G S SEIDEL, HQ/J R FACEY
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 529 CALIFORNIA STATE UNIV.-HAYWARD **1845**
ANALYSIS OF THE VISUAL FRAMEWORK EFFECT
 03/01/1988 – 06/30/1998 FY98: \$25,000 Total: \$474,067
Prin. Invest.: A E STOPER
Tech. Officer: ARC/M M COHEN
CASE Category: 69 – PSYCHOLOGY, OTHER

NAS 3 26127 CALIFORNIA STATE UNIVERSITY – CHICO **1846**
SERVICES TO OPERATE NASA LEWIS RESEARCH CENTER LEARNING CENTER
 11/01/1990 – 06/30/1999 FY98: \$392,147 Total: \$2,148,244
Prin. Invest.: J WRIGHT, S GAUL
Tech. Officer: LERC/D CONRAD, LERC/C DEMONGEOT
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 4 153 CALIFORNIA STATE UNIVERSITY – FRESNO **1847**
THERMO-MECHANICAL CHARACTERISTICS OF COMPOSITE MATERIALS
 03/26/1998 – 03/26/2001 FY98: \$100,000 Total: \$100,000
Prin. Invest.: S MAHANTY, NONE
Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 5175 CALIFORNIA STATE UNIVERSITY – FRESNO **1848**
PILOT STUDIES OF NITROGEN TRACE GAS FLUX FROM MANGLED SOLIS OF THE SAN JOAQUIN VALLEY
 03/28/1996 – 12/31/1997 FY98: \$0 Total: \$4,743
Prin. Invest.: D F ZOLDOSKE
Tech. Officer: ARC/D L PETERSON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 70412 CALIFORNIA STATE UNIVERSITY – FRESNO **1849**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/31/1995 – 07/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: A AUERNHEIMER
Tech. Officer: HQ/D K RUSSELL
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 3787 CALIFORNIA STATE UNIVERSITY – FULLERTON **1850**
ELECTRON IMPACT EXCITATION OF MOLECULAR HYDROGEN
 03/14/1997 – 02/28/1998 FY98: \$0 Total: \$28,000
Prin. Invest.: D KHAKOO
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 4113 CALIFORNIA STATE UNIVERSITY – FULLERTON **1851**
PRODUCTION OF CD-ROM SET: OPTICAL CCD IMAGES IN SPACE SHUTTLE MISSION
 04/16/1997 – 04/14/1998 FY98: \$0 Total: \$19,000
Prin. Invest.: P CHENG
Tech. Officer: GSFC/T P STECHER
CASE Category: 11 – ASTRONOMY

NAG 5 4945 CALIFORNIA STATE UNIVERSITY – FULLERTON **1852**
METEORITE COMPACTION AGES: ANCIENT ENERGETIC PARTICLE DISSIPATION IN THE EARLY SOLAR NEBULA
 06/23/1997 – 12/31/1998 FY98: \$50,002 Total: \$100,002
Prin. Invest.: D WOOLUM
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 9 1009 CALIFORNIA STATE UNIVERSITY – FULLERTON **1853**
GENESIS: DETECTORS CHARACTERIZATION/SELECTION AND EDUCATIONAL OUTREACH
 05/05/1998 – 05/04/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: D S WOOLUM
Tech. Officer: JSC/E K STANSBERRY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 2515 CALIFORNIA STATE UNIVERSITY – FULLERTON **1854**
METEORITE COMPACTION AGES & THE SEARCH FOR EVIDENCE FOR AN EARLY ACTIVE (T-TAURI) SUN
 02/26/1991 – 09/30/1997 FY98: \$0 Total: \$272,263
Prin. Invest.: D S WOOLUM
Tech. Officer: HQ/J A NUTH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 3 1830 CALIFORNIA STATE UNIVERSITY – LONG BEACH **1855**
MAGNETHOLOGICAL FLUIDS: RHEOLOGY AND NONEQUILIBRIUM PATTERNS
 04/18/1996 – 04/17/2000 FY98: \$175,000 Total: \$426,000
Prin. Invest.: J LIU
Tech. Officer: DFRC/K HSIEH
CASE Category: 13 – PHYSICS

NCC 4 107 CALIFORNIA STATE UNIVERSITY – LONG BEACH **1856**
STRUCTURAL FAILURE ANALYSIS AND MATERIAL FAILURE CRITERION INVESTIGATION
 07/26/1996 – 07/30/1998 FY98: \$0 Total: \$27,000
Prin. Invest.: H YEY
Tech. Officer: DFRC/L RICHARDS
CASE Category: 41 – AERONAUTICAL ENGR

NCC 5 329 CALIFORNIA STATE UNIVERSITY – LONG BEACH **1857**
AUGMENTED LEARNING ENVIRONMENT FOR RENEWABLE TEACHING (ALERT)
 05/07/1998 – 04/14/1999 FY98: \$150,000 Total: \$150,000
Prin. Invest.: J AMBOS
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 1 1867 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1858**
SOLAR EAGLE II PROJECT
 09/26/1996 – 09/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J B LANDIS
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 1 2029 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1859**
ACTIVE ISOLATION TECHNIQUES FOR MITIGATING EARTH-QUAKE EFFECTS
 03/17/1998 – 03/16/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: H HASEMIAN
Tech. Officer: LARC/H M ADELMAN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 4 127 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1860**
THE SCIENCE AMBASSADOR DISTANCE LEARNING PROJECT NEW AWARD
 05/23/1997 – 05/23/1999 FY98: \$253,000 Total: \$647,739
Prin. Invest.: T ADENIKA-MORROW
Tech. Officer: DFRC/E L DUKE, DFRC/E COX
CASE Category: 41 – AERONAUTICAL ENGR

NAG 4 130 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1861**
COMPUTER SIMULATION OF PLANNING/NAVIGATION IN TWO AND THREE DIMENSIONAL DYNAMIC ENVIRONMENTS
 05/23/1997 – 05/23/1999 FY98: \$110,000 Total: \$310,000
Prin. Invest.: C WU
Tech. Officer: DFRC/K GUPTA
CASE Category: 22 – COMPUTER SCIENCE

NAG 4 136 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1862**
SIMULATION AND CONTROL OF SUPERSONIC VEHICLE NEW AWARD
 06/27/1997 – 10/27/1998 FY98: \$41,713 Total: \$100,000
Prin. Invest.: M MIRMIRANI
Tech. Officer: DFRC/K K GUPTA
CASE Category: 41 – AERONAUTICAL ENGR

NAG 4 151 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1863**
FAR STUDY OF CINTROL STRUCTURE INERACTION IN LARGE FLEXIBLE SPACE STRUCTURE
 03/26/1998 – 03/26/2001 FY98: \$100,000 Total: \$100,000
Prin. Invest.: L – HSIA
Tech. Officer: DFR/J BRADEN, DFR/K K GUPTA
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 3475 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1864**
MATHEMATICS, SCIENCE AND TECHNOLOGY AWARDS FOR TEA HANCEMENT (MASTAP)FUTURE ACCREDITED SCIENCE TEAC
 12/16/1996 – 10/15/1998 FY98: \$0 Total: \$199,734
Prin. Invest.: T ADENIKA–MORROW
Tech. Officer: GSFC/M MATEU
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6195 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1865**
PACE/MSET AWARD. PERIOD OF PERFORMANCE JULY 1, 199
 08/29/1997 – 06/30/1999 FY98: \$100,000 Total: \$199,995
Prin. Invest.: W TAYLOR
Tech. Officer: GSFC/D STOUTSENBERGER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6517 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1866**
CSARS: A REGIONAL CENTER FOR INTERDISCIPLINARY ENVIRONMENTAL RESEARCH, EDUCATION, AND OUTREACH
 10/24/1997 – 03/31/1999 FY98: \$250,594 Total: \$250,594
Prin. Invest.: J A GAMON
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6757 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1867**
USE OF DECENTRALIZED CONTROL IN DESIGN OF A LARGE SEGMENTED SPACEREFLECTOR
 04/06/1998 – 12/31/1999 FY98: \$1,250,000 Total: \$1,250,000
Prin. Invest.: H R BOUSSALIS
Tech. Officer: GSFC/J MALONE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 7401 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1868**
INTEGRATING MODELS WITH NARROW-BAND, MULTI-SCALE, REMOTELY SENSED DATA FOR IMPROVED ASSESSMENT OF P
 05/20/1998 – 06/30/2000 FY98: \$125,784 Total: \$125,784
Prin. Invest.: J A GAMON
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4103 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1869**
YSE IF DECEBTRAKUZED CONTROL IN DESIGN OF A LARGE SEGMENT
 08/15/1994 – 08/30/1997 FY98: \$0 Total: \$1,800,000
Prin. Invest.: H BOUSSALIS
Tech. Officer: HQ/B L WHITE
CASE Category: 11 – ASTRONOMY

NAGW 4225 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1870**
FAST/URMFP
 12/14/1994 – 09/30/1998 FY98: \$0 Total: \$400,613
Prin. Invest.: T J ADENIKA–MORROW
Tech. Officer: HQ/D K RUSSELL
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 5144 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1871**
UNIVERSITY PREPARATORY PROGRAM UPP
 08/14/1996 – 06/30/1997 FY98: \$0 Total: \$100,000
Prin. Invest.: W TAYLOR, M EPSTEIN
Tech. Officer: HQ/B WHITE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 90016 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1872**
UNDERGRADUATE SCHOLAR AWARDS FOR RESEARCH (USAR)
 12/30/1996 – 08/31/1998 FY98: \$0 Total: \$57,771
Prin. Invest.: M RANDLE
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 46 – MECHANICAL ENGR

NGT 5 90063 CALIFORNIA STATE UNIVERSITY – LOS ANGELES **1873**
TRAINING GRANT-A MODEL PROGRAM TO IMPROVE THE TRAN RESENTED MINORITY ENGINEERING STUDENTS
 03/17/1997 – 08/14/1998 FY98: \$122,000 Total: \$244,000
Prin. Invest.: R B LANDIS
Tech. Officer: GSFC/M MATEU
CASE Category: 49 – ENGINEERING, OTHER

NAG 5 6295 CALIFORNIA STATE UNIVERSITY – MONTEREY BAY **1874**
CALIFORNIA STATE UNIVERSITY – EARTH SYSTEM SCIENCE
 09/17/1997 – 08/31/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: J F PARIS
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6529 CALIFORNIA STATE UNIVERSITY – MONTEREY BAY **1875**
DEVELOPMENT OF A REGIONAL-SCALE ECOSYSTEM PROCESS MODEL FOR EVALUATING THE IMPACTS OF DEVELOPMENT A
 12/08/1997 – 10/31/2000 FY98: \$700,000 Total: \$700,000
Prin. Invest.: L PIERCE
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAS13 98071 CALIFORNIA STATE UNIVERSITY – MONTEREY BAY **1876**
HYPERSPECTRAL DETECTION OF NITROGEN STRESS IN VEGETABLE CROPS SALINAS VALLEY MONTEREY COUNTY
 09/30/1998 – 09/29/2000 FY98: \$125,000 Total: \$125,000
Prin. Invest.: L F JOHNSON, NONE
Tech. Officer: SSC/H CARR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 2 975 CALIFORNIA STATE UNIVERSITY – MONTEREY BAY **1877**
COOPERATIVE RESEARCH IN EARTH SYSTEM SCIENCE, TEC HNOLOGY & APPLICATIONS
 12/19/1996 – 01/31/1999 FY98: \$397,509 Total: \$735,651
Prin. Invest.: S E ALEXANDER, L F JOHNSON, J C COUGHLAN
Tech. Officer: ARC/D L PETERSON, ARC/J A BRASS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 2994 CALIFORNIA STATE UNIVERSITY – NORTHRIDGE **1878**
AN IUE STUDY OF CIRCUMSTELLAR GAS AROUND PROTO- PLANETARY SYSTEM CANDIDATES
 07/13/1995 – 07/14/1997 FY98: \$0 Total: \$22,300
Prin. Invest.: K CHENG
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4973 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE **1879**
PRECISE GROUND-BASED PHOTOMETRIC OBSERVATIONS AND SOLAR
TOTAL AND SPECTRAL IRRADIANCE OBSERVATIONS B
 06/23/1997 - 10/31/1998 FY98: \$0 Total: \$74,623
Prin. Invest.: G A CHAPMAN, NONE
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7059 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE **1880**
A PUBLIC ARCHIVE OF PHOTOMETRIC FULL-DISK SOLAR IM AGES
 03/12/1998 - 04/14/1999 FY98: \$11,000 Total: \$11,000
Prin. Invest.: S R WALTON
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7191 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE **1881**
ACQUISITION AND ANALYSIS OF PRECISE GROUND-BASED P HOTOMET-
RIC FULL-DISK IMAGES FOR THE UNDERSTANDIN
 03/25/1998 - 07/31/2001 FY98: \$16,745 Total: \$16,745
Prin. Invest.: G CHAPMAN
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAGW 3017 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE **1882**
NAGW-3017/CA STATE UNIV/PHOTOMETRIC OBSERVATIONS IN SUPPORT
OF ACRIM 2 ONTHE UARS MISSION
 04/17/1992 - 07/31/1997 FY98: \$0 Total: \$292,804
Prin. Invest.: G A CHAPMAN
Tech. Officer: HQ/W J WAGNER, HQ/J D BOHLIN
CASE Category: 11 - ASTRONOMY

NAGW 4954 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE **1883**
ALLIANCE FOR MINORITY PARTICIPATION
 03/07/1996 - 02/28/1997 FY98: \$0 Total: \$99,250
Prin. Invest.: A F RATCLIFFE
Tech. Officer: HQ/D RUSSELL
CASE Category: 21 - MATHEMATICS

NAS 4 97052 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE **1884**
EDUCATION SERVICES
 09/18/1997 - 09/30/1999 FY98: \$174,687 Total: \$374,687
Prin. Invest.: C CORDOVA
Tech. Officer: DFRC/C C CORDOVA
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1021 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE **1885**
EXAMINING THE EFFECTS OF HIGH-LEVEL INTERRUPTIONS ON PART 121
AIRCREW PERFORMANCE
 02/25/1998 - 01/31/1999 FY98: \$78,707 Total: \$78,707
Prin. Invest.: B TABACHIVIDE, D DAMIS
Tech. Officer: ARC/R K DISMUKES
CASE Category: 99 - MULTI INTERDISCIPL. OTHER

NGT 90032 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE **1886**
NGT-90032/CA STATE UNIV/AN INTER-INSTITUTIONAL ENG INEERING
RETENTION PROGRAM FOR ETHNIC MINORITIES
 08/01/1990 - 06/14/1997 FY98: -\$2 Total: \$1,548,261
Prin. Invest.: C MORNING
Tech. Officer: HQ/M S MARGOLIS
CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1220 CALIFORNIA STATE UNIVERSITY - SACRAMENTO **1887**
JOVE
 11/30/1995 - 04/28/1999 FY98: \$20,000 Total: \$89,600
Prin. Invest.: B HAUSBACK, Z NDLELA
Tech. Officer: MSFC/DSIX
CASE Category: 99 - MULTI INTERDISCIPL. OTHER

NAG 4 108 CALIFORNIA STATE UNIVERSITY-BAKERSFIELD **1888**
EVALUATION ASSISTANCE FOR DRYDEN FLIGHT RESEARCH CENTER AND
ENGINEERING
 05/29/1996 - 05/30/1997 FY98: \$0 Total: \$15,912
Prin. Invest.: D L NYBERG
Tech. Officer: DFRC/D MACKALL, DFRC/C V CHACON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 140 CALIFORNIA STATE UNIVERSITY-BAKERSFIELD **1889**
EVALUATION ASSISTANCE FOR DFRC AND ENGINEERING EVALUATION
ASSISTANCE FOR DFRC
 11/18/1997 - 11/18/1998 FY98: \$52,564 Total: \$52,564
Prin. Invest.: K L NYBERG
Tech. Officer: DFRC/K SHY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 200 CALIFORNIA WESTERN SCHOOL OF LAW **1890**
AERONAUTS 2000: CURRICULUM DEVELOPMENT PROJECT
 01/07/1997 - 08/30/1999 FY98: \$5,085 Total: \$30,085
Prin. Invest.: A L JOHNSON
Tech. Officer: LERC/B E LEWANDOWSKI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 351J CLAREMONT MCKENNA COLLEGE **1891**
PEAK DISTRIBUTION OF CLASSICAL GAMMA-RAY BURSTS
 03/03/1997 - 02/14/1998 FY98: \$0 Total: \$29,950
Prin. Invest.: V WANG
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 369I CLAREMONT MCKENNA COLLEGE **1892**
SELECTION BIASES ON THE SPECTRAL AND TEMPORAL DIST GAMMA
RAY BURSTS
 02/11/1997 - 07/31/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: J C HIGDON
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 4863 COLLEGE OF SAN MATEO **1893**
DEVELOP REMOTE SENSING EDUCATIONAL MATERIALS TO BE ITTY COL-
LEGES ACROSS THE US.
 08/01/1997 - 01/31/1999 FY98: \$83,000 Total: \$164,000
Prin. Invest.: K KENNEDY
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4912 COLLEGE OF SAN MATEO **1894**
ACTES: A V ASSOCIATE OF ARTS IN COMMUNITY COLLEGES FOR TRAIN-
ING IN EARTH SCIENCE
 02/24/1996 - 01/31/1999 FY98: \$0 Total: \$74,000
Prin. Invest.: K D KENNEDY
Tech. Officer: HQ/M A PINE, HQ/D R NORTON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 90040 D-Q UNIVERSITY **1895**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 01/30/1997 – 08/14/1998 FY98: \$0 Total: \$60,000
Prin. Invest.: S TIWARI
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 – ENGINEERING, OTHER

NGT 2 1001 FOOTHILL-DE ANZA COM COLLEGE SYSTEM OFF **1896**
SCIENTIFIC-TECHNICAL & BUSINESS CAREERS TRAINING GRANT
 07/07/1993 – 02/14/1999 FY98: \$1,308,986 Total: \$6,133,261
Prin. Invest.: M CONWAY
Tech. Officer: ARC/M E LOPEZ, ARC/J M MCCULLOUGH
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 2 960 HARVEY MUDD COLLEGE **1897**
ABUNDANCES & MOLECULAR CLOUD STRUCTURE IN THE OUTER GALAXY
 02/06/1995 – 01/31/1997 FY98: \$0 Total: \$47,300
Prin. Invest.: A RUDOLPH, M M
Tech. Officer: ARC/L QUARF, ARC/C B WILTSEE
CASE Category: 11 – ASTRONOMY

NAG 5 3406 HARVEY MUDD COLLEGE **1898**
ABUNDANCE DETERMINATIONS IN THE FAR OUTER GALAXY: INFRARED OBSERVATIONS OF HII REGIONS
 09/06/1996 – 08/14/1998 FY98: \$0 Total: \$18,100
Prin. Invest.: A RUDOLPH
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NCC 2 5293 HARVEY MUDD COLLEGE **1899**
SOFIA – ADVANCED DIAGNOSTIC SYSTEM
 09/15/1998 – 06/30/1999 FY98: \$36,000 Total: \$36,000
Prin. Invest.: C L DYM
Tech. Officer: ARC/D L IVERSON
CASE Category: 45 – ELECTRICAL ENGR

NCC 5 236 LOMA LINDA UNIVERSITY **1900**
COOPERATIVE RESEARCH IN PROTON SPACE RADIATION
 09/10/1997 – 09/30/1998 FY98: \$0 Total: \$3,000,000
Prin. Invest.: D NELSON
Tech. Officer: GSFC/W SCHIMMERLING
CASE Category: 59 – LIFE SCIENCE, OTHER

NCCW 98 LOMA LINDA UNIVERSITY **1901**
COOPERATIVE RESEARCH IN PROTON SPACE RADIATION
 08/07/1996 – 09/30/1997 FY98: \$0 Total: \$3,500,000
Prin. Invest.: D M SLATER
Tech. Officer: HQ/V THORNE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 4 116 LOYOLA MARYMOUNT UNIVERSITY **1902**
EAGLES IN SPACE PROGRAM EAGLES IN SPACE PROGRAM
 02/06/1997 – 11/30/1998 FY98: \$0 Total: \$15,642
Prin. Invest.: I BOND
Tech. Officer: DFR/L DUKE, II
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 7050 LOYOLA MARYMOUNT UNIVERSITY **1903**
TRACKING TRANSIENT EVENTS FROM THE SOLAR WIND TO THE MAGNETOSPHERE
 03/23/1998 – 03/31/2001 FY98: \$21,720 Total: \$21,720
Prin. Invest.: J SANNY
Tech. Officer: GSFC/D EVANS
CASE Category: 11 – ASTRONOMY

NAG 2 6013 NATIONAL HISPANIC UNIVERSITY **1904**
MINORITY EDUCATORS NEURO-LAB TRAINING FOR EXCELLENCE IN SCIENCE (MENTES)
 07/25/1997 – 10/31/1998 FY98: \$32,600 Total: \$132,146
Prin. Invest.: M C VIRAMONTES
Tech. Officer: ARC/B LUNA, ARC/G S LEE
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 2 6016 NATIONAL HISPANIC UNIVERSITY **1905**
LEARNING INNOVATIVE MATHEMATICS & SCIENCE WITH TECHNOLOGY
 08/21/1997 – 11/30/1998 FY98: \$33,100 Total: \$133,095
Prin. Invest.: R D PARKER
Tech. Officer: ARC/G S LEE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 4182 NATIONAL HISPANIC UNIVERSITY **1906**
PACE/MSET CIENTIFICOS 2 PROJECT
 03/27/1997 – 10/31/1998 FY98: \$99,749 Total: \$199,739
Prin. Invest.: M E RIDDLE
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6379 PASADENA CITY COLLEGE **1907**
PACE/MSET AWARD
 11/07/1997 – 07/31/1999 FY98: \$197,806 Total: \$197,806
Prin. Invest.: J CONNOR
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 5165 PASADENA CITY COLLEGE **1908**
PASADENA CITY COLLEGE PRE-COLLEGE SCIENCE ACADEMY
 09/20/1996 – 09/30/1997 FY98: \$0 Total: \$98,903
Prin. Invest.: J CONNER
Tech. Officer: HQ/B WHITE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 3 2050 SAN DIEGO STATE UNIVERSITY **1909**
HIGH SPEED DIGITAL SIGNAL PROCESSING BASED DIGITAL RECEIVERS & TRANSMITTERS
 05/15/1997 – 10/31/1998 FY98: \$0 Total: \$80,000
Prin. Invest.: F HARRIS
Tech. Officer: LERC/M ANDRO
CASE Category: 45 – ELECTRICAL ENGR

NAG 5 6060 SAN DIEGO STATE UNIVERSITY **1910**
MECHANISM OF AUXIN ACTION IN ROOT GROWTH/GRAVITROPISM
 07/29/1997 – 04/30/1999 FY98: \$0 Total: \$122,842
Prin. Invest.: D RAYLE
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 2154 SAN DIEGO STATE UNIVERSITY 1911
CLASSIFICATION OF BIO-OPTICAL PROVINCES IN THE NORTH ATLANTIC DURING JGOFS
 08/31/1990 - 04/30/1997 FY98: -\$26 Total: \$571,243
Prin. Invest.: C C TREES
Tech. Officer: HQ/M R LEWIS, HQ/W S WILSON
CASE Category: 33 - OCEANOGRAPHY

NAS 5 97126 SAN DIEGO STATE UNIVERSITY 1912
SIMBIOS NORMALIZED WATER-LEAVING RADIANCE CAL/VAL
 08/18/1997 - 08/18/1999 FY98: \$70,000 Total: \$312,160
Prin. Invest.: J L MUELLER
Tech. Officer: GSFC/C R MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NCC13 16 SAN DIEGO STATE UNIVERSITY 1913
VISITING INVESTIGATOR PROGRAM VISITING INVESTIGATOR PROGRAM
 09/25/1996 - 12/31/1998 FY98: \$168,740 Total: \$293,724
Prin. Invest.: D HERGERT
Tech. Officer: SSC/H CARR
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 30311 SAN DIEGO STATE UNIVERSITY 1914
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/10/1995 - 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: W OECHEL
Tech. Officer: HQ/D E WICKLAND, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30319 SAN DIEGO STATE UNIVERSITY 1915
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/07/1995 - 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: W C OECHEL
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30077 SAN DIEGO STATE UNIVERSITY 1916
THIRD YEAR FUNDING: "EFFECTS OF ELEVATED CO2 AND FOREST PRODUCTIVITY AND NUTRIENT DYNAMICS IN TUSCA
 09/10/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D ALLEN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30118 SAN DIEGO STATE UNIVERSITY 1917
USING REMOTE SENSING & NATURAL CO2 SPRINGS TO UNDE OF ELEVATED CO2 ON ECOSYSTEMS STRUCTURE AND FUNCT
 09/26/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: W C OECHEL
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4128 SAN FRANCISCO STATE UNIVERSITY 1918
DETERMINATION OF OPTICAL CONSTANTS OF VOLATILE & F MINERALS FOR THERMAL INFRARED SPECTRA OF THE MAR
 03/14/1997 - 06/30/1998 FY98: \$0 Total: \$72,400
Prin. Invest.: T L ROUSH
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4881 SAN FRANCISCO STATE UNIVERSITY 1919
A DEEP RO IAT HRI SURVEY OF GALACTIC GLOBULAR CLUST
 08/05/1997 - 07/31/1998 FY98: \$0 Total: \$4,485
Prin. Invest.: A COOL
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6321 SAN FRANCISCO STATE UNIVERSITY 1920
DETECTING EXTRA-SOLAR PLANETS: CROSSING THE JUPIT
 09/09/1997 - 07/31/1998 FY98: \$0 Total: \$34,858
Prin. Invest.: D W MARCY
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7451 SAN FRANCISCO STATE UNIVERSITY 1921
DETECTING EXTRA-SOLAR PLANETS: CROSSING THE JUPIT ER THRESH-OLD
 09/24/1998 - 06/30/1999 FY98: \$34,858 Total: \$34,858
Prin. Invest.: D W MARCY
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7511 SAN FRANCISCO STATE UNIVERSITY 1922
THE SEASONAL AND INTERANNUAL VARIABILITY OF PHYTOP LANKTON IN THE BERING SEA AS INFLUENCED BY SEA IC
 07/24/1998 - 07/31/2001 FY98: \$98,048 Total: \$98,048
Prin. Invest.: D H ROBINSON
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7631 SAN FRANCISCO STATE UNIVERSITY 1923
MONITORING ECOSYSTEM CONDITION AND STRESS IN THE S AN PABLO BAY, CALIFORNIA
 08/21/1998 - 09/30/2001 FY98: \$99,885 Total: \$99,885
Prin. Invest.: R KUDELA
Tech. Officer: HQ/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 2211 SAN FRANCISCO STATE UNIVERSITY 1924
DETERMINATION OF THE OPTICAL CONSTANTS OF HYDRATES , CARBONATES, SULFATES, AND NITRATES
 10/09/1990 - 06/30/1997 FY98: \$0 Total: \$197,000
Prin. Invest.: T ROUSH
Tech. Officer: HQ/J PLESCIA
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 5121 SAN FRANCISCO STATE UNIVERSITY 1925
A PRECISIN DOPPLER SEARCH FOR EXTRA SOLAR PLANETS
 08/23/1996 - 06/30/1997 FY98: \$0 Total: \$44,922
Prin. Invest.: G W MARCY
Tech. Officer: HQ/P ROGERS, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAS 9 19411 SAN FRANCISCO STATE UNIVERSITY 1926
ANALYSIS OF VOLATILE ORGANIC COMPOUNDS ON MIR STATION
 10/27/1995 - 09/30/1998 FY98: \$80,000 Total: \$366,219
Prin. Invest.: D PALMER
Tech. Officer: JSC/A PLAZA
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 808 SAN FRANCISCO STATE UNIVERSITY 1927
THE BIOGENIC ELEMENTS IN MARS SOIL
 07/01/1993 - 09/30/1998 FY98: \$25,276 Total: \$258,527
Prin. Invest.: J B ORENBERG
Tech. Officer: ARC/G C CARLE
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 901 SAN FRANCISCO STATE UNIVERSITY 1928
CONSTRUCTION OF A LONG-TERM CLIMATOLOGY OF ANTARCTIC POLAR STRATOSPHERIC CLOUDS BY AN AUTOMATED....
 03/27/1995 - 01/15/1999 FY98: \$43,200 Total: \$408,188
Prin. Invest.: K L PAGAN, O GARCIA, P G FOSCHI
Tech. Officer: ARC/R S HIPSKIND, ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 997 SAN FRANCISCO STATE UNIVERSITY 1929
ROBOTIC INTELLIGENT PLANETARY EXPLORERS (RIPE)
 06/11/1997 - 10/31/1998 FY98: \$45,197 Total: \$97,533
Prin. Invest.: G K BENEDIX, J J DERST, E FERON
Tech. Officer: ARC/J N CUZZI
CASE Category: 11 - ASTRONOMY

NCC 2 5180 SAN FRANCISCO STATE UNIVERSITY 1930
FUTURE OFFICE INFRASTRUCTURE
 06/17/1996 - 03/31/1998 FY98: \$0 Total: \$79,973
Prin. Invest.: P SHAHNASSER
Tech. Officer: ARC/P R GRAMS
CASE Category: 22 - COMPUTER SCIENCE

NAG 1 1804 SAN JOSE STATE UNIVERSITY 1931
THEORETICAL STUDIES OF PROCESSES AFFECTING THE STRATOSPHERIC AND FREE TROPOSPHERIC AEROSOL
 02/13/1996 - 05/31/1999 FY98: \$30,000 Total: \$88,852
Prin. Invest.: P HAMILL
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 848 SAN JOSE STATE UNIVERSITY 1932
DEVELOPMENT OF PROCESSING TECHNIQUES FOR ADVANCED THERMAL PROTECTION MATERIALS
 06/17/1993 - 05/31/1999 FY98: \$0 Total: \$391,171
Prin. Invest.: G SELVADURAY
Tech. Officer: ARC/D B LEISER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 2 966 SAN JOSE STATE UNIVERSITY 1933
THERMAL CONDUCTIVITY OF INTERLACED TWO PHASE SYSTEMS FOR FUSIBLE HEAT SINK APPLICATIONS
 02/28/1995 - 06/30/1997 FY98: -\$73 Total: \$39,927
Prin. Invest.: G SELVADURAY
Tech. Officer: ARC/W C LOMAX, ARC/B W WEBBON
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 2 1163 SAN JOSE STATE UNIVERSITY 1934
THERMAL PROPERTY PARAMETER ESTIMATION OF TPS MATERIALS
 09/25/1997 - 12/31/1998 FY98: \$9 Total: \$33,009
Prin. Invest.: J MADDREN
Tech. Officer: ARC/D J RASKY, ARC/D LEISER
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 1223 SAN JOSE STATE UNIVERSITY 1935
MODIFYING THE HUMAN MACHINE INTERFACE BASED ON QUALITATIVE MEASUREMENT OF THE LEVEL OF AWARENESS
 06/18/1998 - 09/30/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: L FEUNG, R B KNAPP
Tech. Officer: ARC/K M CORKER, ARC/W W JOHNSON
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 5 4372 SAN JOSE STATE UNIVERSITY 1936
RADIO OCCULTATION INVESTIGATION OF THE RINGS OF SATURN
 04/25/1997 - 02/28/1999 FY98: \$40,000 Total: \$80,000
Prin. Invest.: D A MAROUF
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 8 97106 SAN JOSE STATE UNIVERSITY 1937
R/S IMPACTS OF URBAN GROWTH ON REGIONAL CLIMATE AND AIR QUALITY
 11/19/1996 - 11/18/1999 FY98: \$29,876 Total: \$89,627
Prin. Invest.: R BORSTEIN
Tech. Officer: MSFC/T MILLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 168 SAN JOSE STATE UNIVERSITY 1938
EXPERIMENTAL STUDIES OF THE DISTRIBUTION OF MINOR CONSTITUENTS IN THE ATMOSPHERE
 01/01/1982 - 12/31/1998 FY98: \$64,981 Total: \$2,689,567
Prin. Invest.: J GOODMAN
Tech. Officer: ARC/R L CHAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 211 SAN JOSE STATE UNIVERSITY 1939
TROPOSPHERIC - STRATOSPHERIC MEASUREMENT STUDIES
 09/22/1987 - 10/31/1998 FY98: \$0 Total: \$1,352,658
Prin. Invest.: J GOODMAN, S W BOWEN
Tech. Officer: ARC/T V BUI, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 327 SAN JOSE STATE UNIVERSITY 1940
AERO-SPACE HUMAN FACTORS
 10/01/1984 - 12/31/1998 FY98: \$1,734,158 Total: \$13,113,043
Prin. Invest.: K JORDAN, K JORDAN
Tech. Officer: ARC/R K DISMUKES
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 466 SAN JOSE STATE UNIVERSITY 1941
STUDIES OF PLANETARY ATMOSPHERES ASSOCIATED WITH EXPERIMENTS ON THE GALILEO JUPITER PROBE EXPERIMENT
 03/01/1987 - 01/31/1998 FY98: \$12,648 Total: \$1,192,781
Prin. Invest.: B RAGENT, J GOODMAN
Tech. Officer: ARC/L E LASHER, ARC/R E YOUNG
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 2 471 SAN JOSE STATE UNIVERSITY 1942
STUDIES OF THE ATMOSPHERE OF VENUS AND WORK ON THERMOSPHERIC STRUCTURE EXPERIMENT OF THE GALILEO JUPITER PROBE
 04/01/1987 - 11/30/1998 FY98: \$0 Total: \$1,097,334
Prin. Invest.: P LESTER, A SEIFF
Tech. Officer: ARC/L E LASHER, ARC/R E YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 687 SAN JOSE STATE UNIVERSITY **1943**
"OBSERVATIONAL STUDY OF SOLAR SYSTEM PLASMAS"
 07/31/1990 - 07/14/1998 FY98: \$0 Total: \$890,284
Prin. Invest.: P HAMILL, P R GAZIS
Tech. Officer: ARC/A BARNES
CASE Category: 11 - ASTRONOMY

NCC 2 723 SAN JOSE STATE UNIVERSITY **1944**
BEHAVIORAL AND PHYSIOLOGICAL EFFECTS OF HINDLIMB UNLOADING IN RATS
 07/26/1991 - 12/31/1998 FY98: \$52,000 Total: \$936,657
Prin. Invest.: R A FOX, F D'AMELIO, L F ENG
Tech. Officer: ARC/M L CORCORAN, ARC/N G DAUNTON
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 756 SAN JOSE STATE UNIVERSITY **1945**
SIMULATION OF TROPICAL BIOMASS BURNING PLUMES
 05/04/1992 - 02/14/1999 FY98: \$46,397 Total: \$478,389
Prin. Invest.: P HAMILL, J A VASTANO
Tech. Officer: ARC/R B CHATFIELD, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 779 SAN JOSE STATE UNIVERSITY **1946**
SCIENTIFIC EVALUATION OF HARDWARE & SUPPORTING STUDIES FOR HARDWARE DEVELOPMENT
 02/09/1993 - 12/31/1998 FY98: \$0 Total: \$528,725
Prin. Invest.: D C HOLLEY
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 798 SAN JOSE STATE UNIVERSITY **1947**
FLIGHT HUMAN FACTORS
 05/12/1993 - 11/30/1998 FY98: \$1,628,120 Total: \$7,805,793
Prin. Invest.: K P JORDAN, D
Tech. Officer: ARC/R K DISMUKES
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 955 SAN JOSE STATE UNIVERSITY **1948**
ATMOSPHERIC DYNAMICS ON VENUS JUPITER AND SATURN - AN OBSERVATIONAL & ANALYTICAL STUDY
 06/24/1996 - 02/14/1999 FY98: \$49,810 Total: \$228,073
Prin. Invest.: A C BRIDGER
Tech. Officer: ARC/R E YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 960 SAN JOSE STATE UNIVERSITY **1949**
STELLAR PROJECT
 07/22/1996 - 05/31/1998 FY98: \$80,000 Total: \$695,495
Prin. Invest.: A RODRIGUEA
Tech. Officer: ARC/B LUNA, ARC/B A CORBIN
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 984 SAN JOSE STATE UNIVERSITY **1950**
DYNAMIS OF RINGS & SMALL BODIES
 04/01/1997 - 12/31/1998 FY98: \$66,184 Total: \$178,239
Prin. Invest.: P J HAMILL
Tech. Officer: ARC/K ZAHALE
CASE Category: 11 - ASTRONOMY

NCC 2 1015 SAN JOSE STATE UNIVERSITY **1951**
INTEGRATING LEGACY APPLICATIONS WITHIN A MIDDLEWARE ENVIRONMENT
 02/01/1998 - 1/31/1999 FY98: \$94,814 Total: \$94,814
Prin. Invest.: F FATOOHI, D HARKEY
Tech. Officer: ARC/M E LIVINGSTON, ARC/D KAWAK
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1022 SAN JOSE STATE UNIVERSITY **1952**
COUNTERACTING MUSCLE ATROPHY USING GALVANIC STIMULATION OF THE VESTIBULAR SYSTEM
 02/26/1998 - 1/31/1999 FY98: \$59,939 Total: \$59,939
Prin. Invest.: F A FOX, I POLYAKOV
Tech. Officer: ARC/M L CORCORAN, ARC/N G DAUNTON
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 1043 SAN JOSE STATE UNIVERSITY **1953**
LIMITATIONS OF HUMAN INFORMATION PROCESSING
 06/18/1998 - 1/30/1998 FY98: \$8,700 Total: \$8,700
Prin. Invest.: M VAN SELST
Tech. Officer: ARC/R W REMINGTON, ARC/J C JOHNSTON
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 1045 SAN JOSE STATE UNIVERSITY **1954**
AIRBORNE MEASUREMENT RESEARCH
 06/30/1998 - 2/31/1998 FY98: \$65,000 Total: \$65,000
Prin. Invest.: J GOODMAN
Tech. Officer: ARC/P BUI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 1059 SAN JOSE STATE UNIVERSITY **1955**
RESEARCH ON PLANETARY ATMOSPHERES & ATMOSPHERE PROBS
 07/27/1998 - 2/31/1998 FY98: \$53,190 Total: \$53,190
Prin. Invest.: J SEIFF, J GOODMAN
Tech. Officer: ARC/R E YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 1060 SAN JOSE STATE UNIVERSITY **1956**
SOLAR WIND STUDIES & AI TECHNOLOGIES
 08/11/1998 - 2/31/1998 FY98: \$43,800 Total: \$43,800
Prin. Invest.: F J HAMILL
Tech. Officer: ARC/A BARNES
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 2 5132 SAN JOSE STATE UNIVERSITY **1957**
MEASUREMENT OF STABLE NITROGEN AND SULFUR ISOTOPES
 06/02/1995 - 17/31/1997 FY98: \$0 Total: \$80,000
Prin. Invest.: F BECKER
Tech. Officer: ARC/J VALENTIN
CASE Category: 13 - PHYSICS

NCC 2 5148 SAN JOSE STATE UNIVERSITY **1958**
MARS GLOBAL SURVEYOR: AEROBRACING & OBSERVATIONS SUPPORT USING A MARS GLOBAL CIRCULATION MODEL
 07/17/1995 - 17/24/1997 FY98: -\$1 Total: \$51,055
Prin. Invest.: J BRIDGER
Tech. Officer: ARC/R M HABERLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

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| <p>NCC 2 5169 SAN JOSE STATE UNIVERSITY 1959 DATA PROCESSING AND ARCHIVING FOR THE RING-PLANE C CROSSING DATA 01/09/1996 – 12/31/1997 FY98: -\$2 Total: \$46,316 Prin. Invest.: D HAMILL Tech. Officer: ARC/D CUZZI CASE Category: 11 – ASTRONOMY</p> | <p>NCC 2 5234 SAN JOSE STATE UNIVERSITY 1966 MINIATURE LASER SPECTROMETER FOR STABLE ISOTOPE MEASUREMENTS 08/12/1997 – 02/28/1999 FY98: \$24,515 Total: \$64,515 Prin. Invest.: J F BECKER Tech. Officer: ARC/J R VALENTIN CASE Category: 12 – CHEMISTRY</p> |
| <p>NCC 2 5171 SAN JOSE STATE UNIVERSITY 1960 AN INTERCOMPARISON OF THE DYNAMICAL CORES OF GLOBAL ATMOSPHERIC CIRCULATION MODELS FOR MARS 02/12/1996 – 02/25/1998 FY98: \$890 Total: \$80,452 Prin. Invest.: D F BRIDGER Tech. Officer: ARC/D M HABERLE CASE Category: 31 – ATMOSPHERIC SCIENCE</p> | <p>NCC 2 5248 SAN JOSE STATE UNIVERSITY 1967 A SIMULATION TO STUDY SPEED DISTRIBUTION IN A SOLAR PLASMA 12/04/1997 – 11/30/1998 FY98: \$40,000 Total: \$40,000 Prin. Invest.: P HAMILL Tech. Officer: ARC/K SWANSON CASE Category: 22 – COMPUTER SCIENCE</p> |
| <p>NCC 2 5179 SAN JOSE STATE UNIVERSITY 1961 THE COUPLING OF REAL TIME CONTROL SOLUTION CHEMISTRY TO PLANT NUTRIENT DEMAND ON DEMAND NUTRIENT 06/13/1996 – 03/31/1998 FY98: \$0 Total: \$38,828 Prin. Invest.: W SAVAGE Tech. Officer: ARC/D L BUBENHEIM CASE Category: 55 – AGRICULTURE</p> | <p>NCC 2 5252 SAN JOSE STATE UNIVERSITY 1968 INVESTIGATING THE CLIMATE OF MARS USING MARS GLOBAL SURVEYOR DATA AND THE AMES MARS GCM 02/02/1998 – 10/10/1998 FY98: \$0 Total: \$0 Prin. Invest.: A BRIDGER, M M JOSHI Tech. Officer: ARC/R M HABERLE CASE Category: 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NCC 2 5181 SAN JOSE STATE UNIVERSITY 1962 MARTIAN METEOROLOGY DETERMINATION OF LARGE SCALE WEATHER PATTERNS FROM SURFACE MEASUREMENTS 06/27/1996 – 09/30/1998 FY98: \$3,411 Total: \$76,399 Prin. Invest.: D C BRIDGER Tech. Officer: ARC/R M HABERLE CASE Category: 31 – ATMOSPHERIC SCIENCE</p> | <p>NCC 2 5280 SAN JOSE STATE UNIVERSITY 1969 MARS WIND & SURFACE TEMPERATURE MODELS 07/17/1998 – 01/31/1999 FY98: \$26,532 Total: \$26,532 Prin. Invest.: A C BRIDGER Tech. Officer: ARC/R M HABERLE CASE Category: 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NCC 2 5203 SAN JOSE STATE UNIVERSITY 1963 REDUCTION AND ANALYSIS OF METEOROLOGY DATA FROM THE MARS PATHFINDER LANDER 02/04/1997 – 09/30/1998 FY98: \$35,937 Total: \$63,934 Prin. Invest.: A C BRIDGER Tech. Officer: ARC/R M HABERLE CASE Category: 31 – ATMOSPHERIC SCIENCE</p> | <p>NCC 2 5283 SAN JOSE STATE UNIVERSITY 1970 EVALUATING EXTINCTION VALUES USING WIRE IMPACTOR DATA 07/27/1998 – 09/14/1998 FY98: \$3,934 Total: \$3,934 Prin. Invest.: P J HAMILL Tech. Officer: ARC/R F PUESCHEL CASE Category: 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NCC 2 5210 SAN JOSE STATE UNIVERSITY 1964 LASER SPECTROSCOPIC STUDIES OF POLYCYCLIC AROMATIC HYDROCARBONS UNDER INTERSTELLAR CONDITIONS 04/03/1997 – 05/31/1998 FY98: \$0 Total: \$39,963 Prin. Invest.: B M STONE Tech. Officer: ARC/L ALLAMANDOLA CASE Category: 11 – ASTRONOMY</p> | <p>NGT 5 50115 SAN JOSE STATE UNIVERSITY 1971 GRADUATE STUDENT RESEARCHERS PROGRAM – STUDENT: C 09/02/1997 – 07/31/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: S WHITE Tech. Officer: HQ/A NURRIDIN CASE Category: 99 – MULTI INTERDISCIPL, OTHER</p> |
| <p>NCC 2 5230 SAN JOSE STATE UNIVERSITY 1965 SEASONAL WATER TRANSPORT IN THE ATMOSPHERE OF MARS APPLICATIONS OF A MARS GLOBAL SURVEYOR DATA 08/18/1997 – 06/30/1999 FY98: \$39,351 Total: \$64,301 Prin. Invest.: A F BRIDGER, J L HOLLINGSWORTH Tech. Officer: ARC/R M HABERLE CASE Category: 31 – ATMOSPHERIC SCIENCE</p> | <p>NAG 2 6011 SANTA CLARA UNIVERSITY 1972 INCREASING MATHEMATICS & SCIENCE ACHIEVEMENT FOR STUDENTS THROUGH TEACHER TRAINING 07/11/1997 – 09/30/1998 FY98: -\$2,902 Total: \$84,193 Prin. Invest.: L MAHON Tech. Officer: ARC/L A SHAWNEE CASE Category: 99 – MULTI INTERDISCIPL, OTHER</p> |
| <p>NAGW 4245 SANTA CLARA UNIVERSITY 1973 INCREASING MATHEMATICS AND SCIENCE ACHIEVEMENT 01/11/1995 – 07/31/1997 FY98: -\$13,742 Total: \$163,986 Prin. Invest.: L MAHON Tech. Officer: ARC/L SHAWNEE, ARC/B L WHITE CASE Category: 99 – MULTI INTERDISCIPL, OTHER</p> | |

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| NCC 2 1025 SANTA CLARA UNIVERSITY 1974 EVALUATING THE EFFECTS OF MAINTENANCE RESOURCE MANAGEMENT IN AIR SAFETY 03/02/1998 - 01/31/1999 FY98: \$196,433 Total: \$196,433 <i>Prin. Invest.:</i> J C TAYLOR <i>Tech. Officer:</i> ARC/B G KANKI, ARC/M M CONNORS <i>CASE Category:</i> 62 - PSYCHOLOGY SOCIAL ASPECTS | NAG 5 4403 SONOMA STATE UNIVERSITY 1982 CONTINUED ECLIPSE TIMING OF EXO0748-676 05/05/1997 - 05/14/1998 FY98: \$0 Total: \$5,000 <i>Prin. Invest.:</i> L COMINSKY <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY |
| NCC 2 5167 SANTA CLARA UNIVERSITY 1975 DEVELOPMENT OF ADVANCED METHODS OF STRUCTURAL AND TRAJECTORY ANALYSES FOR TRANSPORT AIRCRAFT 12/15/1995 - 02/28/1998 FY98: \$0 Total: \$79,798 <i>Prin. Invest.:</i> P ARDEMA <i>Tech. Officer:</i> ARC/D MIURA, ARC/M H MOORE <i>CASE Category:</i> 41 - AERONAUTICAL ENGR | NAG 5 7267 SONOMA STATE UNIVERSITY 1983 GLAST MISSION CONCEPT STUDY AND PUBLIC OUTREACH 06/29/1998 - 01/31/1999 FY98: \$45,000 Total: \$45,000 <i>Prin. Invest.:</i> L COMINSKY <i>Tech. Officer:</i> GSFC/N GEHRELS <i>CASE Category:</i> 11 - ASTRONOMY |
| NCC 2 5217 SANTA CLARA UNIVERSITY 1976 PRESENTATION OF RESEARCH RESULTS ON LAUNCH VEHICLE RE-ENTRY TRAJECTORIES 06/24/1997 - 08/31/1997 FY98: \$0 Total: \$3,300 <i>Prin. Invest.:</i> M ARDEMA <i>Tech. Officer:</i> ARC/J BOWLES <i>CASE Category:</i> 42 - ASTRONAUTICAL ENGR | NCC 2 930 SONOMA STATE UNIVERSITY 1984 EXERCISE WITHIN LBNP TO PRODUCE ARTIFICIAL GRAVITY 09/14/1995 - 05/31/1998 FY98: \$0 Total: \$7,994 <i>Prin. Invest.:</i> W L BODA, PH.D. <i>Tech. Officer:</i> ARC/A R HARGENS <i>CASE Category:</i> 56 - MEDICAL |
| NCC 2 5250 SANTA CLARA UNIVERSITY 1977 APPLICATION OF FIRST ORDER EXPANSIONS TO TRAJECTORY OPTIMIZATION OF TRANSPORT AIRCRAFT 01/12/1998 - 09/30/1998 FY98: \$51,274 Total: \$51,274 <i>Prin. Invest.:</i> M ARDEMA <i>Tech. Officer:</i> ARC/J D PHILLIPS <i>CASE Category:</i> 41 - AERONAUTICAL ENGR | NAG 1 1558 STANFORD UNIVERSITY 1985 NEW APPROACHES TO MULTIDISCIPLINARY DESIGN AND OPTIMIZATION NLPN 93-113j 11/30/1993 - 06/15/1997 FY98: -\$1,855 Total: \$583,129 <i>Prin. Invest.:</i> M KROO <i>Tech. Officer:</i> LARC/J F BARTHELEMY, LARC/J C TOWNSEND <i>CASE Category:</i> 41 - AERONAUTICAL ENGR |
| NAG 7 1 SIERRA COLLEGE 1978 DEVELOP MGMT CURRICULUM TO TRAIN ENGINEERING STUDENTS 04/14/1994 - 04/14/1998 FY98: \$0 Total: \$443,000 <i>Prin. Invest.:</i> M DOBECK <i>Tech. Officer:</i> NMO/A HUSAIN <i>CASE Category:</i> 54 - ENVIRONMENTAL BIOLOGY | NAG 1 1863 STANFORD UNIVERSITY 1986 GTO MICRO SATELLITE PHASE A STUDY 08/22/1996 - 12/31/1996 FY98: -\$8 Total: \$29,993 <i>Prin. Invest.:</i> R J TWIGGS <i>Tech. Officer:</i> LARC/J JUANG, LARC/K BELVIN <i>CASE Category:</i> 42 - ASTRONAUTICAL ENGR |
| NAG 5 2948 SONOMA STATE UNIVERSITY 1979 MAGNETOSPHERIC ACCRETION IN PSR 1259-63 05/19/1995 - 11/30/1998 FY98: \$0 Total: \$22,132 <i>Prin. Invest.:</i> L COMINSKY <i>Tech. Officer:</i> GSFC/N WHITE <i>CASE Category:</i> 11 - ASTRONOMY | NAG 1 1879 STANFORD UNIVERSITY 1987 DEVELOPMENT OF A COMPOSITE DAMAGE MODULE FOR THE STAGGS FINITE ELEMENT CODE 11/20/1996 - 01/01/1998 FY98: \$0 Total: \$50,170 <i>Prin. Invest.:</i> F C CHANG <i>Tech. Officer:</i> LARC/J H STAMES <i>CASE Category:</i> 41 - AERONAUTICAL ENGR |
| NAG 5 3324 SONOMA STATE UNIVERSITY 1980 INVESTIGATION OF X-RAY VARIABILITY FROM 4U1755-33; LACK OF ORBITAL PERIOD EVOLUTION IN EXO0748-676 08/07/1996 - 02/14/1998 FY98: \$0 Total: \$9,003 <i>Prin. Invest.:</i> L COMINSKY <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY | NAG 1 2034 STANFORD UNIVERSITY 1988 CFD ANALYSIS & DESIGN OF BOUNDARY-LAYER-INGESTING INLETS FOR BLENDED-WING-BODY CONCEPT 03/23/1998 - 11/22/1998 FY98: \$50,385 Total: \$50,385 <i>Prin. Invest.:</i> M KROO <i>Tech. Officer:</i> LARC/B L BERRIER, LARC/C A HUNTER <i>CASE Category:</i> 41 - AERONAUTICAL ENGR |
| NAG 5 3702 SONOMA STATE UNIVERSITY 1981 A TEST OF SPIN-ORBIT COUPLING IN THE 4U0115+63 SYS 02/11/1997 - 01/31/1999 FY98: \$0 Total: \$36,500 <i>Prin. Invest.:</i> L COMINSKY <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY | NAG 1 2056 STANFORD UNIVERSITY 1989 AN EXPANDED TEST PROGRAM FOR THE BLENDED WING BODY 17 (BWB 17) FLIGHT CONTROL TESTBED 04/14/1998 - 09/30/1998 FY98: \$85,010 Total: \$85,010 <i>Prin. Invest.:</i> M KROO <i>Tech. Officer:</i> LARC/D G MURRI <i>CASE Category:</i> 41 - AERONAUTICAL ENGR |

NAG 1 2107 STANFORD UNIVERSITY 1990
**DEVELOPMENT OF A COMPOSITE DAMAGE MODULE FOR THE STAGS
 FINITE ELEMENT CODE**
 09/03/1998 – 06/02/2000 FY98: \$46,700 Total: \$46,700
Prin. Invest.: F K CHANG
Tech. Officer: LARC/J H STARNES, JR., LARC/P B BOGERT
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 891 STANFORD UNIVERSITY 1991
**"AN INTEGRATED ENVIRONMENT FOR EFFICIENT FORMAL DESGN AND
 VERIFICATION"**
 03/28/1994 – 12/31/1998 FY98: \$50,000 Total: \$2,542,281
Prin. Invest.: D L DILL
Tech. Officer: ARC/S LAU
CASE Category: 22 – COMPUTER SCIENCE

NAG 2 892 STANFORD UNIVERSITY 1992
**SOFTWARE DEVELOPMENT TECHNOLOGIES FOR REACTIVE, RE AL-TIME,
 & HYBRID SYSTEMS**
 03/28/1994 – 12/31/1998 FY98: \$0 Total: \$1,739,565
Prin. Invest.: Z MANNA
Tech. Officer: ARC/S LAU
CASE Category: 22 – COMPUTER SCIENCE

NAG 2 911 STANFORD UNIVERSITY 1993
TENSOR FIELD VISUALIZATION
 06/23/1994 – 10/31/1997 FY98: \$0 Total: \$290,652
Prin. Invest.: L HESSELINK
Tech. Officer: ARC/A A VAZIRI/M G YAMASAKI
CASE Category: 22 – COMPUTER SCIENCE

NAG 2 1065 STANFORD UNIVERSITY 1994
**HEALTH MONITORING OR HELICOPTER TRANSMISSION USING ADAPTIVE
 SIGNAL PROCESSING OF GEARBOX**
 07/15/1996 – 05/31/1999 FY98: \$0 Total: \$100,010
Prin. Invest.: T H MENG
Tech. Officer: ARC/E M HUFF
CASE Category: 22 – COMPUTER SCIENCE

NAG 2 1070 STANFORD UNIVERSITY 1995
COLLABORATION DESIGN WITH HIGH FIDELITY DISCIPLINARY MODELS
 08/14/1996 – 09/30/1997 FY98: \$0 Total: \$60,000
Prin. Invest.: I M KROO
Tech. Officer: ARC/H MIURA
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 2 1079 STANFORD UNIVERSITY 1996
INFRARED SIGNATURE MASKING BY AIR PLASMA RADIATION
 08/23/1996 – 09/30/1998 FY98: \$0 Total: \$147,947
Prin. Invest.: C H KRUGER, C O LAUX
Tech. Officer: ARC/S R LANGHOFF
CASE Category: 13 – PHYSICS

NAG 2 1113 STANFORD UNIVERSITY 1997
**COMPUTATIONAL STUDY OF FIELD INITIATED SURFACE REACTIONS FOR
 SYNTHESIS OF DIAMOND & SILICON**
 02/10/1997 – 12/31/1998 FY98: \$74,864 Total: \$167,115
Prin. Invest.: C B MUSGRAVE
Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 2 1141 STANFORD UNIVERSITY 1998
**PROPOSAL FOR RESEARCH ON UNSTRUCTURED MESH METHODS FOR
 AERODYNAMIC ANALYSIS & DESIGN**
 07/21/1997 – 09/30/1998 FY98: \$0 Total: \$99,049
Prin. Invest.: G A JAMESON, J J ALSON
Tech. Officer: ARC/S E CLIFF, ARC/D P BENCZE
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1213 STANFORD UNIVERSITY 1999
HIGH SPEED JET NOISE PREDICTION USING NUMERICAL SIMULATIONS
 05/04/1998 – 04/30/1999 FY98: \$22,979 Total: \$22,979
Prin. Invest.: S K LELE
Tech. Officer: ARC/D KWAK
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1219 STANFORD UNIVERSITY 2000
**ACTIVE CONTROL OF COMBUSTION INSTABILITY IN AIR-BR EATING
 PROPULSION SYSTEMS – A COMPUTATIONAL & ..**
 05/19/1998 – 04/30/1999 FY98: \$200,000 Total: \$200,000
Prin. Invest.: C T BOWMAN, C F EDWARDS, G RVETSCH
Tech. Officer: ARC/A A WRAY, ARC/C H SCHULBACH
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1257 STANFORD UNIVERSITY 2001
**GENERATION & CONSERVATION OF DESIGN KNOWLEDGE: NEW MILLEN-
 NIUM**
 08/24/1998 – 03/14/1999 FY98: \$70,000 Total: \$70,000
Prin. Invest.: L J LEIFFER
Tech. Officer: ARC/W J CLANCY
CASE Category: 22 – COMPUTER SCIENCE

NAG 2 1259 STANFORD UNIVERSITY 2002
**THE STRUCTURE & CHEMISTRY OF HIGH DENSITY INDUCTIVELY
 COUPLED PLASMA DISCHARGES USED IN MICROELECTR**
 08/26/1998 – 11/30/1998 FY98: \$20,000 Total: \$20,000
Prin. Invest.: M A CAPPELLI
Tech. Officer: ARC/S P SHARMA
CASE Category: 13 – PHYSICS

NAG 3 1475 STANFORD UNIVERSITY 2003
**PROBLEMS IN MICROGRAVITY FLUID MECHANICS: THERMOCAPILLARY
 INSTABILITIES & G-JITTER CONVECTION**
 04/30/1993 – 01/31/1997 FY98: -\$1,934 Total: \$353,314
Prin. Invest.: G M HOMSY
Tech. Officer: LERC/B S SINGH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 3 1843 STANFORD UNIVERSITY 2004
**DROP BREAKUP IN FLOW THROUGH FLUID BEDS AS MODEL STOCHAS-
 TIC STRONG FLOWS**
 05/20/1996 – 05/19/2000 FY98: \$66,000 Total: \$266,000
Prin. Invest.: E G SHAQTEH
Tech. Officer: LERC/B S SINGH
CASE Category: 13 – PHYSICS

NAG 3 1887 STANFORD UNIVERSITY 2005
THE INFLUENCES OF GRAVITY OF COLLOIDAL CRYSTALLIZATION AND FIELD-INDUCED AGGREGATION
 05/29/1996 – 06/30/2000 FY98: \$90,000 Total: \$240,000
Prin. Invest.: D A RUFF
Tech. Officer: LERC/D D ROSS, LERC/M A SAKSTEDTER
CASE Category: 13 – PHYSICS

NAG 3 1902 STANFORD UNIVERSITY 2006
STUDY THE EFFECT OF CONFINEMENT ON TRANSPORT PROPERTIES BY MAKING USE OF HELIUM ALONG THE LAMBDALINE
 06/13/1996 – 06/12/1999 FY98: \$28,000 Total: \$112,000
Prin. Invest.: J A LIPA
Tech. Officer: LERC/B S SINGH
CASE Category: 13 – PHYSICS

NAG 3 1940 STANFORD UNIVERSITY 2007
RED-SHIFT TEST OF GENERAL RELATIVITY ON SPACE STAT ION USING SUPERCONDUCTIVITY CAVITY OSCILLATORS
 09/10/1996 – 09/09/1998 FY98: \$75,000 Total: \$200,021
Prin. Invest.: J A LIPA, J TURNEAURE, W W HANSEN
Tech. Officer: LERC/B S SINGH
CASE Category: 13 – PHYSICS

NAG 3 1943 STANFORD UNIVERSITY 2008
PROBLEMS IN MICROGRAVITY FLUID MECHANICS: THERMO CAPILLARY INSTABILITIES & G-JITTER CONVECTION
 09/03/1996 – 08/31/2000 FY98: \$105,000 Total: \$265,000
Prin. Invest.: G M HOMSY
Tech. Officer: LERC/J C DUH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 2393 STANFORD UNIVERSITY 2009
REMOTE SENSING OF HABITAT EDGES AND THEIR EFFECT ON BIODIVERSITY
 10/13/1993 – 10/14/1998 FY98: \$25,000 Total: \$60,000
Prin. Invest.: P EHRlich
Tech. Officer: GSFC/M L IMHOFF
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 2706 STANFORD UNIVERSITY 2010
X-RAYS FROM A HIGH VELOCITY PULSAR BOW SHOCK PSR B2224+65
 09/07/1994 – 09/14/1998 FY98: \$0 Total: \$31,928
Prin. Invest.: R ROMANI
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 3077 STANFORD UNIVERSITY 2011
SOLAR OSCILLATIONS INVESTIGATION – MISSION OBSERVATIONS AND DATA ANALYSIS
 09/25/1995 – 09/30/1999 FY98: \$5,843,251 Total: \$19,100,901
Prin. Invest.: P H SCHERRER
Tech. Officer: GSFC/A I POLAND
CASE Category: 11 – ASTRONOMY

NAG 5 3101 STANFORD UNIVERSITY 2012
SPECTRAL MODELS OF NEUTRON STAR MAGNETOSPHERES
 10/05/1995 – 10/14/1998 FY98: \$0 Total: \$81,965
Prin. Invest.: R W ROMANI
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3102 STANFORD UNIVERSITY 2013
RELATIVISTIC DISK OSCILLOLOGY
 10/05/1995 – 10/14/1998 FY98: \$60,000 Total: \$180,000
Prin. Invest.: R V WAGONER
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3263 STANFORD UNIVERSITY 2014
HIGH ENERGY RADIATION FROM ROTATION – POWERED PULSARS (NO COST TIME EXTENSION)
 07/01/1996 – 04/30/1999 FY98: \$65,500 Total: \$96,383
Prin. Invest.: R W ROMANI
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3322 STANFORD UNIVERSITY 2015
INVESTIGATION OF X-RAY VARIABILITY FROM 4U1755-33
 08/07/1996 – 02/14/1998 FY98: \$0 Total: \$15,000
Prin. Invest.: P MICHELSON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3332 STANFORD UNIVERSITY 2016
PROBING THE MATTER DISTRIBUTION IN THE 4U1907+09 SYSTEM WITH ASCA
 08/12/1996 – 02/14/1998 FY98: \$0 Total: \$24,423
Prin. Invest.: P MICHELSON
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3333 STANFORD UNIVERSITY 2017
AN ASCA SEARCH FOR PULSAR SIGNATURES IN EGRET UNIDENTIFIED
 08/12/1996 – 02/14/1999 FY98: \$0 Total: \$19,536
Prin. Invest.: R ROMANI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3441 STANFORD UNIVERSITY 2018
DIGITAL TOPOGRAPHY PROPOSAL: LONG TERM MONITORING OF EARTH SURFACE CHANGE WITH ERS-1 AND ERS-2....
 01/11/1997 – 10/14/1998 FY98: \$82,033 Total: \$164,472
Prin. Invest.: H ZEBKER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3637 STANFORD UNIVERSITY 2019
WWW ACCESS TO STANFORD WIDEBAND DATA
 02/12/1997 – 02/14/1999 FY98: \$10,000 Total: \$20,000
Prin. Invest.: D S INAN
Tech. Officer: GSFC/J WILLETT
CASE Category: 13 – PHYSICS

NAG 5 3688 STANFORD UNIVERSITY 2020
DISTRIBUTION OF THE OBSERVED AND INTRINSIC PROPERTIES OF BURSTS
 01/15/1997 – 01/14/1999 FY98: \$45,000 Total: \$105,000
Prin. Invest.: V PETROSIAN
Tech. Officer: GSFC/J N NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3732 STANFORD UNIVERSITY **2021**
TOPOGRAPHIC MAPPING IN THE ANTARCTIC ENVIRONMENT U INTERFEROMETRY
 02/14/1997 – 02/28/1999 FY98: \$56,000 Total: \$112,000
Prin. Invest.: D ZEBKER
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3775 STANFORD UNIVERSITY **2022**
DEVELOPMENT OF LOW TEMPERATURE WIDE BAND HIGH SPEED
 02/13/1997 – 02/14/1999 FY98: \$116,000 Total: \$232,000
Prin. Invest.: P CABRERA
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 3906 STANFORD UNIVERSITY **2023**
RADAR STUDIES OF LUNAR AND PLANETARY SURFACES
 02/21/1997 – 10/31/1998 FY98: \$60,000 Total: \$120,000
Prin. Invest.: G TYLER
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3985 STANFORD UNIVERSITY **2024**
THE EFFECTS OF CHARGED PARTICLE RADIATION ON GRAVI SPACE
 03/03/1997 – 02/14/1999 FY98: \$42,371 Total: \$95,271
Prin. Invest.: D A LIPA
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 4038 STANFORD UNIVERSITY **2025**
PHYSICS OF SOLAR ACTIVITY
 02/26/1997 – 02/28/1998 FY98: \$0 Total: \$166,777
Prin. Invest.: D A STURROCK
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 – PHYSICS

NAG 5 4321 STANFORD UNIVERSITY **2026**
RADIO OCCULTATION STUDIES OF VENUS' ATMOSPHERE WITH
 04/04/1997 – 12/31/1998 FY98: \$0 Total: \$37,500
Prin. Invest.: P L TYLER
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4322 STANFORD UNIVERSITY **2027**
RESEARCH PLANETARY ATMOSPHERES
 04/04/1997 – 09/30/1999 FY98: \$91,667 Total: \$196,667
Prin. Invest.: D R ESHLEMAN
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4554 STANFORD UNIVERSITY **2028**
PITCH ANGLE SCATTERING AND PRECIPITATION OF RADIAT OBLIQUE WHISTLER WAVES
 05/05/1997 – 05/14/1999 FY98: \$38,000 Total: \$112,000
Prin. Invest.: D S INAN
Tech. Officer: GSFC/D EVANS
CASE Category: 13 – PHYSICS

NAG 5 4844 STANFORD UNIVERSITY **2029**
SEARCH FOR POLYCYCLIC AROMATIC HYDROCARBONS IN ANT ICROME-TEORITE SAMPLES
 06/19/1997 – 07/31/1998 FY98: \$0 Total: \$80,000
Prin. Invest.: P N ZARE
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4888 STANFORD UNIVERSITY **2030**
THE WHITE-INOY MOUNTAINS, EASTERN CALIFORNIA: INFL ALTITUDE ON SOIL DEVELOPMENT AND BOTANICAL COVER
 08/08/1997 – 06/30/1999 FY98: \$0 Total: \$50,000
Prin. Invest.: G ERNST
Tech. Officer: GSFC/M BALTUCK
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4936 STANFORD UNIVERSITY **2031**
SEARCH FOR UNIQUE ORGANIC BIOMARKERS IN ALH 84001
 06/23/1997 – 05/31/1999 FY98: \$65,000 Total: \$155,000
Prin. Invest.: R N ZARE
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 5109 STANFORD UNIVERSITY **2032**
DEVELOPMENT OF GLAST, A BROADBAND HIGH-ENERGY GAMMA-RAY TELESCOPE
 02/19/1997 – 12/31/1998 FY98: \$435,520 Total: \$931,536
Prin. Invest.: P F MICHELSON
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5200 STANFORD UNIVERSITY **2033**
INVESTIGATION OF THE CORONA/CHROMOSPHERE INTERFACE WITH THE CHROMOSPHERIC/CORONAL SPECTROHELIOGRAPH
 05/28/1998 – 03/31/1999 FY98: \$214,350 Total: \$214,350
Prin. Invest.: A B WALKER
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 – PHYSICS

NAG 5 6107 STANFORD UNIVERSITY **2034**
SUPPORT OF THE ECOSYSTEM PHYSIOLOGY COMPONENT OF T AND TERRESTRIAL ECOSYSTEM CORE PROJECT
 07/24/1997 – 07/31/1998 FY98: \$19,800 Total: \$184,800
Prin. Invest.: H MOONEY
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6112 STANFORD UNIVERSITY **2035**
STRUCTURE OF SOLAR MAGNETIC AND VELOCITY FIELDS
 07/28/1997 – 06/30/1999 FY98: \$47,333 Total: \$71,909
Prin. Invest.: D H SCHERRER
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 6148 STANFORD UNIVERSITY **2036**
SURFACE DEFORMATION AND TOPOGRAPHIC MEASUREMENTS FR Y IN THE PRESENCE OF VEGETATION
 08/21/1997 – 08/31/1999 FY98: \$66,000 Total: \$130,919
Prin. Invest.: H A ZEBKER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 6167 STANFORD UNIVERSITY 2037
INVERSION OF TIME DEPENDENT SPACE GEODETIC DATA
 08/01/1997 - 06/30/1999 FY98: \$102,000 Total: \$202,002
Prin. Invest.: P SEGALL
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6233 STANFORD UNIVERSITY 2038
ADVANCED ALGORITHM DEVELOPMENT FOR SPACE-BASED GP INCREMENTALLY FUNDED FY 97 AND 98
 09/18/1997 - 09/30/1998 FY98: \$360,340 Total: \$400,340
Prin. Invest.: J P HOW
Tech. Officer: GSFC/J CROFT
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 6264 STANFORD UNIVERSITY 2039
HEATING, IONIZATION AND RED SPRITES PRODUCED IN THE QUASI ELECTROSTATIC THUNDERCLOUD FIELDS
 08/21/1997 - 05/31/1999 FY98: \$34,510 Total: \$110,728
Prin. Invest.: D S INAN
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 6537 STANFORD UNIVERSITY 2040
CENTER OF EXCELLENCE FOR INTEGRATED INSAR AND GPS STUDIES OF NATURAL HAZARDS AND LAND SUBSIDENCE
 10/24/1997 - 09/30/1998 FY98: \$106,000 Total: \$106,000
Prin. Invest.: P SEGALL
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6615 STANFORD UNIVERSITY 2041
LAND-USE AND LAND-COVER CHANGE IN SONORA, MEXICO
 11/17/1997 - 05/14/2000 FY98: \$282,183 Total: \$282,183
Prin. Invest.: P MATSON
Tech. Officer: GSFC/A JANETOS
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6655 STANFORD UNIVERSITY 2042
UPLINK RADIO INSTRUMENT DEVELOPMENT
 12/24/1997 - 11/30/1998 FY98: \$152,205 Total: \$152,205
Prin. Invest.: G TYLER
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 5 7144 STANFORD UNIVERSITY 2043
STUDIES OF THE IMPULSIVE PHASE OF SOLAR FLARE: BASIC MECHANISM AND PARAMETER DISTRIBUTIONS
 04/20/1998 - 04/14/2001 FY98: \$40,841 Total: \$40,841
Prin. Invest.: V PETROSIAN
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7208 STANFORD UNIVERSITY 2044
CHEMICAL AND ISOTOPIC ANALYSIS OF TRACE ORGANIC MATTER ON METEORITES AND INTERSTELLAR DUST USING
 03/25/1998 - 07/31/2001 FY98: \$20,000 Total: \$20,000
Prin. Invest.: R ZARE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7367 STANFORD UNIVERSITY 2045
SUPPORT FOR WORKSHOP ON GLOBAL CHANGE AND INVASIVE SPECIES
 05/04/1998 - 05/14/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: H A MOONEY
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7468 STANFORD UNIVERSITY 2046
XTE PROPOSAL (30043) - ENERGY DEPENDENCE OF MILLIS ECOND TIMING PHENOMENA IN THE Z-SOURCE G
 06/02/1998 - 08/31/1999 FY98: \$9,903 Total: \$9,903
Prin. Invest.: F F MICHELSON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7535 STANFORD UNIVERSITY 2047
FAST TIMING STUDIES OF GX 340+0 - XTE PROPOSAL (20 059)
 06/26/1998 - 06/14/1999 FY98: \$22,820 Total: \$22,820
Prin. Invest.: F F MICHELSON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7609 STANFORD UNIVERSITY 2048
ABUNDANCES OF CALCIUM-41 AND HAFNIUM-182 IN THE EARLY SOLAR SYSTEM
 07/27/1998 - 07/31/2000 FY98: \$16,667 Total: \$16,667
Prin. Invest.: F IRELAND
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7708 STANFORD UNIVERSITY 2049
LASER DIODE PUMPED YB:YAG SOLID-STATE LASERS FOR SPACE-BASED APPLICATIONS
 09/22/1998 - 09/30/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: R BYER
Tech. Officer: GSFC/J BUFTON
CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1088 STANFORD UNIVERSITY 2050
ATOM INTERFEROMETRY IN A MICROGRAVITY ENVIRONMENT
 09/26/1994 - 06/25/1997 FY98: -\$250 Total: \$139,750
Prin. Invest.: M KASEVICH
Tech. Officer: MSFC/D E NOEVER, MSFC/D CARTER
CASE Category: 11 - ASTRONOMY

NAG 8 1151 STANFORD UNIVERSITY 2051
LASER SCATTERING TOMOGRAPHY
 08/18/1995 - 06/30/1999 FY98: \$105,000 Total: \$540,000
Prin. Invest.: R S FEIGELSON
Tech. Officer: MSFC/D A REISS
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1431 STANFORD UNIVERSITY 2052
R/S MINI SATELLITE TEST OF THE EQUIVALENCE PRINCIPLE
 02/01/1998 - 01/31/1999 FY98: \$844,478 Total: \$844,478
Prin. Invest.: C W FRANCIS-EVERITT
Tech. Officer: MSFC/J W POE
CASE Category: 13 - PHYSICS

NAG 8 1431 STANFORD UNIVERSITY **2053**
R/S HIGH RESOLUTION STUDY OF THE CRITICAL REGION OF OXYGEN
USING MAGNETIC LEVITATION
 03/05/1998 - 01/31/2003 FY98: \$90,000 Total: \$90,000
Prin. Invest.: J A LIPA
Tech. Officer: MSFC/J W POE
CASE Category: 13 - PHYSICS

NAG 8 1436 STANFORD UNIVERSITY **2054**
R/S A TEST OF SUPERSYMMETRY THEORY BY SEARCHING FOR ANOM-
ALOUS SHORT RANGE FORCES
 02/06/1998 - 01/31/2000 FY98: \$51,000 Total: \$51,000
Prin. Invest.: J A LIPA
Tech. Officer: MSFC/J W POE
CASE Category: 13 - PHYSICS

NAG 8 1439 STANFORD UNIVERSITY **2055**
R/S FUNDAMENTAL PHYSICS EXPERIMENTS WITH SUPER- CONDUCTING
CAVITY-STABILIZED OSCILLATORS ON SPACE
 02/01/1998 - 01/31/2003 FY98: \$90,000 Total: \$90,000
Prin. Invest.: J A LIPA
Tech. Officer: MSFC/J W POE
CASE Category: 13 - PHYSICS

NAG 8 1457 STANFORD UNIVERSITY **2056**
R/S INVESTIGATION OF THE CRYSTAL GROWTH OF DIELECTRIC MATERI-
ALS BY THE BRIDGMAN TECHNIQUE
 02/01/1998 - 01/31/2002 FY98: \$90,000 Total: \$90,000
Prin. Invest.: R S FEIGELSON
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 1971 STANFORD UNIVERSITY **2057**
RESEARCH IN PLANETARY ATMOSPHERE
 03/13/1990 - 09/30/1996 FY98: -\$4,782 Total: \$546,382
Prin. Invest.: V R ESHLEMAN
Tech. Officer: HQ/J T BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAGW 2502 STANFORD UNIVERSITY **2058**
NAGW-2502/STANFORD UNIV/STRUCTURE OF SOLAR MAGNETIC AND
VELOCITY FIELDS
 07/01/1991 - 09/30/1997 FY98: \$0 Total: \$997,000
Prin. Invest.: P H SCHERRER
Tech. Officer: HQ/W J WAGNER, HQ/K LANG
CASE Category: 45 - ELECTRICAL ENGR

NAGW 4212 STANFORD UNIVERSITY **2059**
SUPPORT OF THE ECOSYSTEM PHYSIOLOGY COMPONENT OF THE IGBP
GLOBAL CHANGE AND TERRESTRIAL ECOSYSTEMS
 12/16/1994 - 09/30/1997 FY98: \$0 Total: \$271,500
Prin. Invest.: H A MOONEY
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4341 STANFORD UNIVERSITY **2060**
RADIO OCCULTATION STUDIES OF VENUS' ATMOSPHERE WITH MAGEL-
LAN
 03/18/1995 - 12/31/1996 FY98: \$0 Total: \$75,000
Prin. Invest.: G L TYLER
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4466 STANFORD UNIVERSITY **2061**
RESTORATION AND ARCHIVING OF WIDE BAND WAVE DATA FROM THE
DE-1 AND ISEE-1 SATELLITE
 05/04/1995 - 04/30/1997 FY98: \$0 Total: \$34,999
Prin. Invest.: U S INAN
Tech. Officer: HQ/J WILLET
CASE Category: 45 - ELECTRICAL ENGR

NAGW 4863 STANFORD UNIVERSITY **2062**
A PROPOSAL TO STUDY THE EFFECTS OF CHARGED PARTICLE RADI-
ATION ON GRAVITATIONAL SENSORS IN SPACE
 11/21/1995 - 06/30/1997 FY98: \$0 Total: \$51,712
Prin. Invest.: J A LIPA
Tech. Officer: HQ/L TAFF, HQ/D W WEEDMAN
CASE Category: 13 - PHYSICS

NAGW 4878 STANFORD UNIVERSITY **2063**
CLEMENTINE BISTATIC RADAR DATA ANALYSIS
 12/11/1995 - 12/31/1997 FY98: \$0 Total: \$167,000
Prin. Invest.: G TYLER
Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 4943 STANFORD UNIVERSITY **2064**
TOPOGRAPHIC MAPPING IN THE ANTARTIC ENVIRONMENT USING
RADARSAT
 03/22/1996 - 09/30/1998 FY98: \$0 Total: \$52,956
Prin. Invest.: H ZEBKER
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5116 STANFORD UNIVERSITY **2065**
UPLINK RADIO INSTRUMENT DEVELOPMENT
 07/22/1996 - 09/30/1997 FY98: \$0 Total: \$120,729
Prin. Invest.: G TYLER
Tech. Officer: HQ/T KOSTIUK, HQ/H C BRINTON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 5156 STANFORD UNIVERSITY **2066**
THEORY/RADIATION BELT LOSSES VIA WAVE PARTICLE INTERACTIONS
 11/01/1996 - 05/14/1997 FY98: \$0 Total: \$72,000
Prin. Invest.: U S INAN
Tech. Officer: HQ/J D BOHLIN, HQ/G L WITHBROE
CASE Category: 13 - PHYSICS

NAGW 5223 STANFORD UNIVERSITY **2067**
RESEARCH IN PLANETARY ATMOSPHERES
 11/04/1996 - 09/30/1997 FY98: \$0 Total: \$100,000
Prin. Invest.: V R ESHLEMAN
Tech. Officer: HQ/J BERGSTRALH, HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NAS 5 31726 STANFORD UNIVERSITY **2068**
EOS - "BIOSPHERE-ATMOSPHERE INTERACTIONS" STUDY
 10/24/1991 - 12/31/1999 FY98: \$183,000 Total: \$1,157,200
Prin. Invest.: H MOONEY, P VITOUSEK
Tech. Officer: GSFC/P SELLERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 96085 STANFORD UNIVERSITY **2069**
ALGORITHM DEVELOPMENT & TESTING
 08/09/1996 – 10/08/1997 FY98: \$0 Total: \$99,799
Prin. Invest.: J HOW
Tech. Officer: GSFC/F BAUER
CASE Category: 41 – AERONAUTICAL ENGR

NAS 5 98039 STANFORD UNIVERSITY **2070**
GLAST INSTRUMENT TECHNOLOGY
 07/09/1998 – 02/15/1999 FY98: \$500,000 Total: \$500,000
Prin. Invest.: P MICHELSON
Tech. Officer: GSFC/M D JOSEPH
CASE Category: 11 – ASTRONOMY

NAS 8 39225 STANFORD UNIVERSITY **2071**
GRAVITY PROBE B SCIENCE MISSION INTERIM CONTRACT
 01/18/1995 – 09/30/2003 FY98: \$54,800,000 Total: \$202,842,177
Prin. Invest.: C W EVERITT, B PARKINSON
Tech. Officer: MSFC/R S GEVEDEN, MSFC/B RANDOLPH
CASE Category: 13 – PHYSICS

NAS 9 97120 STANFORD UNIVERSITY **2072**
TECHNOLOGY TO DEMO CAPABILITY FOR RELATIVE POSITION/ATTITUDE DETERMINATION BETWEEN FREE MOVING ...
 04/07/1997 – 10/31/1997 FY98: -\$41,880 Total: \$211,060
Prin. Invest.: J P HOW
Tech. Officer: JSC/J D WAGENKNECHT
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 253 STANFORD UNIVERSITY **2073**
NEW ARCHITECTURES FOR MULTIDISCIPLINARY DESIGN AND OPTIMIZATION
 04/14/1997 – 04/13/1999 FY98: \$60,684 Total: \$110,684
Prin. Invest.: I KROO, L L GREEN
Tech. Officer: LARC/L L GREEN
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 55 STANFORD UNIVERSITY **2074**
THE RESEARCH AND TRAINING ACTIVITIES FOR THE JOINT INSTITUTE FOR AERONAUTICS AND ACOUSTICS*
 12/01/1979 – 01/31/1998 FY98: \$299,995 Total: \$7,966,858
Prin. Invest.: L ROBERTS, L ROBERTS
Tech. Officer: ARC/S S DAVIS, ARC/J D MURPHY
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 307 STANFORD UNIVERSITY **2075**
CENTER OF EXCELLENCE IN MODEL-BASED HUMAN PERFORMANCE
 07/01/1984 – 02/28/1997 FY98: -\$408 Total: \$2,341,524
Prin. Invest.: B A WANDELL
Tech. Officer: ARC/A J AHUMADA, ARC/A B WATSON
CASE Category: 69 – PSYCHOLOGY, OTHER

NCC 2 333 STANFORD UNIVERSITY **2076**
RESEARCH ON CONTROL OF SPACECRAFT MANIPULATOR SYSTEM
 11/01/1987 – 10/31/1998 FY98: \$500,000 Total: \$7,359,798
Prin. Invest.: R H CANNON
Tech. Officer: ARC/M H SIMS, ARC/S LAU
CASE Category: 42 – AERONAUTICAL ENGR

NCC 2 461 STANFORD UNIVERSITY **2077**
CENTER FOR TURBULENCE RESEARCH
 12/01/1986 – 12/31/1998 FY98: \$1,168,485 Total: \$13,966,453
Prin. Invest.: P MOIN, W C REYNOLDS
Tech. Officer: ARC/M ROGERS
CASE Category: 46 – MECHANICAL ENGR

NCC 2 721 STANFORD UNIVERSITY **2078**
"THE STRUCTURE, FACIES & DEPOSITION OF SILICEOUS SUBSTRATES AROUND THERMAL SPRINGS: IMPLICATIONS FOR ...
 07/03/1991 – 06/30/1998 FY98: \$0 Total: \$395,228
Prin. Invest.: D R LOWE
Tech. Officer: ARC/D J DES MARAIS, ARC/S CHANG
CASE Category: 32 – GEOLOGICAL SCIENCE

NCC 2 903 STANFORD UNIVERSITY **2079**
STUDIES OF PLANETARY RING SYSTEMS
 06/26/1995 – 12/31/1998 FY98: \$0 Total: \$406,667
Prin. Invest.: A L TYLER, M R SHOWALTER
Tech. Officer: ARC/J N CUZZI
CASE Category: 11 – ASTRONOMY

NCC 2 951 STANFORD UNIVERSITY **2080**
GCDK-NEW MILLENNIUM
 06/05/1996 – 06/30/1998 FY98: \$0 Total: \$250,000
Prin. Invest.: L J LEIFER
Tech. Officer: ARC/S LAU
CASE Category: 22 – COMPUTER SCIENCE

NCC 2 967 STANFORD UNIVERSITY **2081**
MERGED SIMION & GPS CONTROL OF A SEMI-AUTONOMOUS, SMALL HELICOPTER
 08/23/1996 – 09/30/1997 FY98: \$0 Total: \$90,989
Prin. Invest.: S M ROCK
Tech. Officer: ARC/R A COPPENBARGER/B SRIDHAR
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 1014 STANFORD UNIVERSITY **2082**
TASK LEVEL CONTROL FOR A FULL SEMI-AUTONOMOUS MISSION: TEST PLATFORM DEVELOPMENT & DEMONSTRATION
 08/19/1997 – 12/31/1998 FY98: \$49,640 Total: \$99,640
Prin. Invest.: S M ROCK, R CANNON
Tech. Officer: ARC/M H SIMS, ARC/C MINA
CASE Category: 22 – COMPUTER SCIENCE

NCC 2 1010 STANFORD UNIVERSITY **2083**
DEVELOPMENT OF 3-D BIOMEDICAL COMPUTATION
 01/07/1998 – 08/31/1998 FY98: \$350,000 Total: \$350,000
Prin. Invest.: S A SCHENDEL
Tech. Officer: ARC/K A SOUZA
CASE Category: 56 – MEDICAL

NCC 2 1020 STANFORD UNIVERSITY **2084**
LEARNING AIR TRAFFIC CONTROL BY MEANS OF NEURAL NETWORKS
 02/19/1998 – 11/30/1998 FY98: \$88,000 Total: \$88,000
Prin. Invest.: B WIDROW
Tech. Officer: ARC/T J DAVIS, ARC/D ISAACSON
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 1065 STANFORD UNIVERSITY **2085**
AN EXPERIMENTAL & COMPUTATIONAL STUDY OF THE AIRFLOW OVER SHIP DECKS
 09/21/1998 – 10/31/1998 FY98: \$23,485 Total: \$23,485
Prin. Invest.: J J ALONSO, K LONG, P BRADSHAW
Tech. Officer: ARC/G G ZILLIAC
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 5072 STANFORD UNIVERSITY **2086**
PARTICLE/CONTINUUM HYBRID SIMULATION IN A PARALLEL COMPUTING ENVIRONMENT
 07/28/1994 – 09/30/1996 FY98: -\$18 Total: \$78,342
Prin. Invest.: D BAGANOFF
Tech. Officer: ARC/W J FEIEREISEN
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 5121 STANFORD UNIVERSITY **2087**
BONE ADAPTATION DURING DISUSE AND RECOVERY: A COMBINED THEORETICAL & COMPUTATIONAL MODELING STUDY
 03/17/1995 – 03/31/1997 FY98: -\$105 Total: \$55,675
Prin. Invest.: D R CARTER
Tech. Officer: ARC/R T WHALEN
CASE Category: 46 – MECHANICAL ENGR

NCC 2 5138 STANFORD UNIVERSITY **2088**
DIRECT DETERMINATION OF VIBRATIONAL POPULATION ACCUMULATION RATES IN RAPID EXPANSIONS OF HIGH ENTHALPY
 07/18/1995 – 03/31/1997 FY98: -\$396 Total: \$60,970
Prin. Invest.: M A CAPPELLI
Tech. Officer: ARC/S P SHARMA
CASE Category: 42 – ASTRONAUTICAL ENGR

NCC 2 5163 STANFORD UNIVERSITY **2089**
PROPOSAL FOR COOPERATION IN INTERNATIONAL SPACE PROGRAMS
 10/23/1995 – 09/30/1997 FY98: \$0 Total: \$77,060
Prin. Invest.: B LUSIGNAN
Tech. Officer: ARC/G BRIGGS, ARC/L LEMKE
CASE Category: 42 – ASTRONAUTICAL ENGR

NCC 2 5166 STANFORD UNIVERSITY **2090**
ANALYSIS OF THE PHYSICAL PROPERTIES OF DUST SUSPENDED IN THE MARS ATMOSPHERE
 12/07/1995 – 09/30/1997 FY98: -\$526 Total: \$73,597
Prin. Invest.: B CANTWELL
Tech. Officer: ARC/C MCKAY, ARC/B TOON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 2 5186 STANFORD UNIVERSITY **2091**
HIGHLY ACCURATE RECONSTRUCTION OF COMPUTED TOMOGRAPHY VOLUME SCANS FOR THE DETERMINATION OF LOCAL BONE DENSITY
 07/25/1996 – 10/31/1998 FY98: \$4,000 Total: \$129,000
Prin. Invest.: S A NAPEL
Tech. Officer: ARC/R T WHALEN
CASE Category: 56 – MEDICAL

NCC 2 5187 STANFORD UNIVERSITY **2092**
NON-EQUILIBRIUM TURBULENCE MODELING FOR HIGH LIFT AERODYNAMICS
 07/25/1996 – 08/31/1998 FY98: \$0 Total: \$34,320
Prin. Invest.: P A DURBIN
Tech. Officer: ARC/T J COAKLEY
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 5197 STANFORD UNIVERSITY **2093**
SHARP/TREV REENTRY VEHICLE ELECTRONICS DESIGN
 12/12/1996 – 01/14/1999 FY98: \$39,853 Total: \$79,851
Prin. Invest.: B CANTWELL, R TWIGGS
Tech. Officer: ARC/P KOLODZIEJ
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 5200 STANFORD UNIVERSITY **2094**
INVESTIGATION OF A PARTICLE/CONTINUUM HYBRID SIMULATION FOR PARALLEL COMPUTATION
 12/20/1996 – 09/30/1998 FY98: \$36,661 Total: \$76,481
Prin. Invest.: D BAGANOFF
Tech. Officer: ARC/W J FEIEREISEN
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 5202 STANFORD UNIVERSITY **2095**
AUTONOMOUS SATELLITE COMMAND AND CONTROL THROUGH THE WORLD WIDE WEB PHASE-3
 01/24/1997 – 03/31/1998 FY98: \$0 Total: \$39,997
Prin. Invest.: B CANTWELL, R TWIGGS
Tech. Officer: ARC/K SWANSON
CASE Category: 22 – COMPUTER SCIENCE

NCC 2 5205 STANFORD UNIVERSITY **2096**
DIAGNOSTICS FOR PLASMA ENHANCED CHEMICAL VAPOR DEPOSITION AND ETCH SYSTEMS
 02/21/1997 – 01/31/1999 FY98: \$77,165 Total: \$132,220
Prin. Invest.: M CAPPELLI
Tech. Officer: ARC/S SHARMA
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 2 5211 STANFORD UNIVERSITY **2097**
INTEGRATED COMPUTATIONAL SYSTEM FOR AERODYNAMIC STEERING AND VISUALIZATION
 04/03/1997 – 12/31/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: L HESSELINK
Tech. Officer: ARC/D KORSMEYER
CASE Category: 22 – COMPUTER SCIENCE

NCC 2 5225 STANFORD UNIVERSITY **2098**
NOISE CORRELATION OF WINGS AND FLAPS
 07/10/1997 – 02/28/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: B J CANTWELL
Tech. Officer: ARC/D KWAK
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 5226 STANFORD UNIVERSITY **2099**
AERO-STRUCTURAL OPTIMIZATION OF HSCT CONFIGURATIONS IN TRANSONIC AND SUPERSONIC
 07/08/1997 – 09/30/1998 FY98: \$0 Total: \$50,755
Prin. Invest.: J J ALONSO, G A JAMESON
Tech. Officer: ARC/D P BENCZE, ARC/S E CLIFF
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 5247 STANFORD UNIVERSITY 2100
REPRESENTATION AND INTEGRATION OF SCIENTIFIC INFORMATION
 12/02/1997 - 11/30/1998 FY98: \$49,165 Total: \$49,165
Prin. Invest.: H GARCIA-MOLINA
Tech. Officer: ARC/M GERALD-YAMAASAKI, ARC/A VAZORO
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5249 STANFORD UNIVERSITY 2101
HUMAN-VEHICLE INTERFACE FOR SEMI-AUTONOMOUS OPERATION OF UNINHABITED AERO VEHICLES
 01/23/1998 - 12/31/1998 FY98: \$64,485 Total: \$64,485
Prin. Invest.: S ROCK
Tech. Officer: ARC/J LARIMER
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5256 STANFORD UNIVERSITY 2102
PROPOSAL FOR ALTERNATIVES FOR HUMAN EXPLORATION OF MARS
 02/23/1998 - 07/31/1998 FY98: \$20,000 Total: \$20,000
Prin. Invest.: B LUSIGNAN
Tech. Officer: ARC/M S MURBACH
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5261 STANFORD UNIVERSITY 2103
INVESTIGATION OF ATTENTIONAL BOTTLENECKS USING FUNCTIONAL MAGNETIC RESONANCE IMAGING
 06/17/1998 - 10/31/1998 FY98: \$26,667 Total: \$26,667
Prin. Invest.: J E GABRIELI
Tech. Officer: ARC/R W REMINGTON, ARC/J C JOHNSTON
CASE Category: 61 - PSYCHOLOGY BIOLOGY

NCC 2 5269 STANFORD UNIVERSITY 2104
INTEGRATED COMPUTATIONAL SYSTEM FOR AERODYNAMIC STREAMLINED VISUALIZATION
 06/02/1998 - 02/28/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: L HESSELINK, NONE
Tech. Officer: ARC/D J KORSMEYER, ARC/J D WALTON
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5270 STANFORD UNIVERSITY 2105
EXPLORING CARBON NANOTUBES FOR FUTURE 1NM NANOLITHOGRAPHY
 06/12/1998 - 09/30/1998 FY98: \$40,000 Total: \$40,000
Prin. Invest.: H DAI
Tech. Officer: ARC/S SAINI
CASE Category: 12 - CHEMISTRY

NCC 2 5272 STANFORD UNIVERSITY 2106
PLANETARY ROBOTIC VEHICLE MOBILITY TECHNOLOGY
 06/25/1998 - 12/14/1998 FY98: \$20,000 Total: \$20,000
Prin. Invest.: B B LUSIGNAN
Tech. Officer: ARC/C R STOKER
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5275 STANFORD UNIVERSITY 2107
DEVELOPMENT & FEASIBILITY TESTING OF IMAGE-GUIDED MINIMALLY INVASIVE TISSUE FOR DIAGNOSIS & TREATMENT
 07/13/1998 - 10/31/1998 FY98: \$6,291 Total: \$6,291
Prin. Invest.: S S JEFFREY
Tech. Officer: ARC/R W MAH, ARC/K J SWANSON
CASE Category: 56 - MEDICAL

NCC 2 5278 STANFORD UNIVERSITY 2108
ARCHITECTURE FOR ACCESS & MANIPULATION OF HETEROGENEOUS INFORMATION
 07/16/1998 - 06/30/1999 FY98: \$94,853 Total: \$94,853
Prin. Invest.: H GARCIA-MOLINA
Tech. Officer: ARC/M GERALD-YAMAASAKI
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5286 STANFORD UNIVERSITY 2109
AUTOMATIC INTERNET-BASED CONTROL OF SPACECRAFT GROUND STATIONS
 08/04/1998 - 12/31/1998 FY98: \$15,000 Total: \$15,000
Prin. Invest.: B J CANTWELL, R J TWIGGS
Tech. Officer: ARC/K J SWANSON
CASE Category: 22 - COMPUTER SCIENCE

NCC 3 640 STANFORD UNIVERSITY 2110
ATTENUATION OF GAS TURBULENCE BY A NEARLY STATIONARY DISPERSION OF FINE PARTICLES
 08/18/1998 - 12/31/2002 FY98: \$80,000 Total: \$80,000
Prin. Invest.: J K EATON
Tech. Officer: LERC/F CHARIMONTE
CASE Category: 46 - MECHANICAL ENGR

NCC 5 95 STANFORD UNIVERSITY 2111
CELESTIAL GAMMA RAY STUDY
 07/13/1995 - 08/31/1997 FY98: \$0 Total: \$1,076,796
Prin. Invest.: P MICHELSON
Tech. Officer: GSFC/C E FICHEL
CASE Category: 11 - ASTRONOMY

NCC 5 214 STANFORD UNIVERSITY 2112
GLAST - SUPPORT OF GAMMA-RAY LARGE AREA SPACE TELESCOPE CONCEPT STUDY ACTIVITIES
 07/03/1997 - 06/30/1998 FY98: \$135,000 Total: \$171,871
Prin. Invest.: P F MICHELSON
Tech. Officer: GSFC/N GEHRELS
CASE Category: 11 - ASTRONOMY

NGT 3023: STANFORD UNIVERSITY 2113
GLOBAL CHANGE FELLOWSHIP AWARD
 10/06/1994 - 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: P VITOUSEK
Tech. Office: HQ/D E WICKLAND, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 3025: STANFORD UNIVERSITY 2114
GLOBAL CHANGE FELLOWSHIP AWARD
 10/06/1994 - 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: C B FIELD
Tech. Office: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 3028: STANFORD UNIVERSITY 2115
GLOBAL CHANGE FELLOWSHIP AWARD
 10/06/1994 - 02/28/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: U S INAN
Tech. Office: HQ/J S THEON, HQ/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

NGT 51056 STANFORD UNIVERSITY **2116**
GRADUATE STUDENT RESEARCHERS PROGRAM
 05/25/1993 – 12/31/1996 FY98: -\$405 Total: \$65,595
Prin. Invest.: R H CANNON
Tech. Officer: JSC/S GOLDSTEIN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 51238 STANFORD UNIVERSITY **2117**
GRADUATE STUDENT RESEARCHERS PROGRAM
 09/08/1994 – 06/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: M CAPPELI
Tech. Officer: LERC/FMONTEGANI
CASE Category: 46 – MECHANICAL ENGR

NGT 51285 STANFORD UNIVERSITY **2118**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/06/1994 – 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J OLIGER
Tech. Officer: HQ/D HOLLAND
CASE Category: 32 – GEOLOGICAL SCIENCE

NGT 51308 STANFORD UNIVERSITY **2119**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/23/1994 – 12/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: D CANTWELL
Tech. Officer: HQ/A NURRIDIN
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NGT 51344 STANFORD UNIVERSITY **2120**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 – 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: G M HOMSY
Tech. Officer: HQ/G ALESANE
CASE Category: 43 – CHEMICAL ENGR

NGT 70340 STANFORD UNIVERSITY **2121**
GRADUATE STUDENT RESEARCHERS (UMF) PROGRAM
 06/30/1993 – 07/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: L TYLER
Tech. Officer: HQ/D K RUSSELL
CASE Category: 45 – ELECTRICAL ENGR

NGT 70364 STANFORD UNIVERSITY **2122**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMF)
 09/11/1993 – 06/30/1998 FY98: \$0 Total: \$88,000
Prin. Invest.: A WALKER
Tech. Officer: HQ/D K RUSSELL
CASE Category: 13 – PHYSICS

NGT 70405 STANFORD UNIVERSITY **2123**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 11/07/1994 – 09/05/1997 FY98: -\$16,500 Total: \$49,500
Prin. Invest.: L LEIFER
Tech. Officer: HQ/D K RUSSELL
CASE Category: 46 – MECHANICAL ENGR

NGT 2 52207 STANFORD UNIVERSITY **2124**
TASK-LEVEL CONTROL FOR A REDUNDANT MANIPULATOR
 09/14/1995 – 12/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: R H CANNON, G A HUNT
Tech. Officer: ARC/M H SIMS, ARC/S LAU
CASE Category: 41 – AERONAUTICAL ENGR

NGT 2 52208 STANFORD UNIVERSITY **2125**
INTELLIGENT MACHANISMS AND REHABILITATION ROBOTICS
 09/21/1995 – 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: L LEIFER, M J JOHNSON
Tech. Officer: ARC/M H SIMS, ARC/S LAU
CASE Category: 46 – MECHANICAL ENGR

NGT 2 52209 STANFORD UNIVERSITY **2126**
A DIRECT NUMERICAL SIMULATION OF TURBULENCE IN A COMPRESSIBLE BOUNDARY LAYER
 09/21/1995 – 06/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: P W MAC CORMACK, S E GUARONO
Tech. Officer: ARC/K SHARIFF, ARC/N MANSOUR
CASE Category: 41 – AERONAUTICAL ENGR

NGT 2 52211 STANFORD UNIVERSITY **2127**
AN INTEGRATED SENSOR TELEMETRY SYSTEM
 10/12/1995 – 09/14/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: G KOVACS, R ZOMORA
Tech. Officer: ARC/J W HINES
CASE Category: 45 – ELECTRICAL ENGR

NGT 2 52212 STANFORD UNIVERSITY **2128**
A SUMMER PROGRAM OF NASA SUMMER FACULTY FELLOWSHIPS AT AMES RESEARCH, DRYDEN FLIGHT RESEARCH CENTER
 06/04/1996 – 03/31/1999 FY98: \$428,000 Total: \$1,411,000
Prin. Invest.: G S SPRINGER, M E TAUBER
Tech. Officer: ARC/M M MOORE, ARC/S A STANLEY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 2 52220 STANFORD UNIVERSITY **2129**
TURBULENCE MEASUREMENTS ON A WING FLAP EDGE & WING SLAT MODEL
 09/03/1996 – 06/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: B CANTWELL, P J MORIARTY
Tech. Officer: ARC/J C ROSS
CASE Category: 41 – AERONAUTICAL ENGR

NGT 2 52246 STANFORD UNIVERSITY **2130**
DETERMINATION OF CALCANEAL BONE DENSITY CHANGES OF SPINAL CORD INJURED PATIENTS
 08/20/1998 – 09/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: CARTER
Tech. Officer: ARC/R T WHALEN
CASE Category: 59 – LIFE SCIENCE, OTHER

NGT 5 20412 STANFORD UNIVERSITY **2131**
A SUMMER PROGRAM OF NASA SUMMER FACULTY FELLOWSHIPS \$171,216
 12/16/1999 – 06/15/1997 FY98: \$0 Total: \$7,408,691
Prin. Invest.: D BERSHADER, J MAYERS
Tech. Officer: HQ/A S MCGEE, HQ/E T SCHWARTZ
CASE Category: 49 – ENGINEERING, OTHER

NGT 5 30018 STANFORD UNIVERSITY **2132**
ANTHROPOGENIC CHANGES IN GRASSLANDS: CONSEQUENCES ATMOSPHERIC CARBON DIOXIDE AND SPECIES INVASIONS
 10/14/1996 – 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: H MOONEY
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30130 STANFORD UNIVERSITY **2133**
BIOGEOCHEMICAL CONTROLS OVER THE PRODUCTION & LOSS OF DISSOLVED ORGANIC NUTRIENTS IN LOWLAND TROPIC
 10/14/1997 – 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: D VITOUSE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50044 STANFORD UNIVERSITY **2134**
THE SEARCH FOR A DEFINITIVE BLACK HOLE SIGNATURE: PED MODES OF DISK OSCILLATION
 07/17/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: R WAGONER
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50075 STANFORD UNIVERSITY **2135**
SENSING AND CONTROL TECHNOLOGIES FOR FORMATION FLYING
 08/26/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: J HOW
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50101 STANFORD UNIVERSITY **2136**
ASSESSING LINKS BETWEEN BIODIVERSITY AND ECOSYSTEM FORESTS
 09/06/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: C FIELD
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50227 STANFORD UNIVERSITY **2137**
GLOBAL LIGHTNING DETECTION AND LOCATION USING LONG RANGE VLF SPHERIC MEASUREMENTS
 09/29/1998 – 08/31/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: U INAN, WOOD
Tech. Officer: HQ/A NURRIDIN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 5 90066 STANFORD UNIVERSITY **2138**
USAR
 03/20/1997 – 08/14/1997 FY98: \$0 Total: \$24,000
Prin. Invest.: N LOZANO
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 9 6 STANFORD UNIVERSITY **2139**
DYNAMIC SIMULATION OF ROBOTIC ENVIRONMENTS
 06/29/1995 – 06/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: O KHATIB
Tech. Officer: JSC/D G SOCKOREZ
CASE Category: 22 – COMPUTER SCIENCE

NGT 9 28 STANFORD UNIVERSITY **2140**
TASK-LEVEL CONTROL FOR SPACE ROBOTIC MANIPULATORS
 09/25/1997 – 09/29/1998 FY98: \$22,000 Total: \$44,000
Prin. Invest.: J HOW
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG 5 3647 THE SCRIPPS RESEARCH INST (TSRI) – LA JOLLA **2141**
EVOLUTION OF CATALYTIC RNA IN THE LABORATORY
 03/06/1997 – 11/30/1998 FY98: \$267,722 Total: \$522,699
Prin. Invest.: D JOYCE
Tech. Officer: GSFC/M MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 3984 THE SCRIPPS RESEARCH INST (TSRI) – LA JOLLA **2142**
GLOBAL SURFACE ULTRAVIOLET RADIATION CLIMATOLOGY
 03/03/1997 – 01/31/1999 FY98: \$0 Total: \$30,004
Prin. Invest.: D LUBIN
Tech. Officer: GSFC/J KAYE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 5191 THE SCRIPPS RESEARCH INST (TSRI) – LA JOLLA **2143**
SATELLITE REMOTE SENSING STUDIES OF BIOLOGICAL AND BIOGEOCHEMICAL PROCESSES IN THE OCEAN
 04/21/1998 – 03/31/1999 FY98: \$18,852 Total: \$18,852
Prin. Invest.: M VERNET
Tech. Officer: GSFC/F E HOGE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 2 1055 THE SCRIPPS RESEARCH INST (TSRI) – LA JOLLA **2144**
SELF-REPRODUCING MOLECULAR SYSTEMS & DARWINIAN CHEMISTRY
 08/27/1998 – 03/30/2003 FY98: \$335,000 Total: \$335,000
Prin. Invest.: R GHADIRI
Tech. Officer: FRC/L J CAROFF, ARC/S CHANG
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 1 1816 UNIVERSITY OF CALIFORNIA – BERKELEY **2145**
EXPERIMENTAL STUDY OF COMPLEX VORTEX INTERACTIONS IN THE WAKE OF HIGH ASPECT RATION WINGS
 03/20/1996 – 11/30/1996 FY98: -\$1 Total: \$52,500
Prin. Invest.: O SAVAS, D LIEPMANN
Prin. Invest.: NONE
Tech. Officer: LARC/K M JONES, LARC/E G WAGGONER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 208 UNIVERSITY OF CALIFORNIA – BERKELEY **2146**
SPECTROSCOPIC OBSERVATION OF INFRARED LINES NORMALLY OBSCURED BY ATMOSPHERIC ABSORPTION
 11/01/1987 – 11/30/1996 FY98: \$11,386 Total: \$2,026,098
Prin. Invest.: C H TOWNES, R GENZEL
Tech. Officer: FRC/L C HAUGHNEY
CASE Category: 11 – ASTRONOMY

NAG 2 711 UNIVERSITY OF CALIFORNIA – BERKELEY **2147**
"ANTENNA COUPLED MICROBOLOMETER"
 07/16/1991 – 11/30/1998 FY98: \$65,000 Total: \$383,000
Prin. Invest.: P L RICHARDS
Tech. Officer: FRC/C R MCCREIGHT, ARC/R E MCMURRAY
CASE Category: 13 – PHYSICS

NAG 2 1039 UNIVERSITY OF CALIFORNIA – BERKELEY **2148**
TOOLS FOR NONLINEAR CONTROL SYSTEMS DESIGN
 04/17/1996 – 11/30/1998 FY98: \$55,000 Total: \$200,372
Prin. Invest.: S S SASTRY
Tech. Officer: FRC/G MEYER
CASE Category: 49 – ENGINEERING, OTHER

NAG 2 1110 UNIVERSITY OF CALIFORNIA - BERKELEY **2149**
IN SITU MEASUREMENTS OF CIO₂, CIO, BRO, NO₂ & N₂O₅ FROM THE
ER-2 DURING POLARIS
 02/06/1997 - 06/30/1999 FY98: \$50,413 Total: \$150,413
Prin. Invest.: R C COHEN
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1135 UNIVERSITY OF CALIFORNIA - BERKELEY **2150**
ALGORITHMS FOR VISUAL SEARCH AND THE PATHFINDER ROVER
 06/25/1997 - 05/31/1999 FY98: \$75,000 Total: \$100,000
Prin. Invest.: L W STARK
Tech. Officer: ARC/M M SIMS
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1177 UNIVERSITY OF CALIFORNIA - BERKELEY **2151**
RESEARCH ON THE APPLICATION OF FUZZY LOGIC & GRANULAR COM-
PUTING & SOFT COMPUTING TO SYSTEM ANALYSIS
 02/11/1998 - 12/31/1998 FY98: \$66,553 Total: \$66,553
Prin. Invest.: L A ZADEH
Tech. Officer: ARC/B J GLASS
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1210 UNIVERSITY OF CALIFORNIA - BERKELEY **2152**
FORMAL METHODS FOR SOFTWARE EVOLUTION MODELING INTERFACE
 05/07/1998 - 07/31/1999 FY98: \$249,999 Total: \$249,999
Prin. Invest.: A AOLEM
Tech. Officer: ARC/M R LOWRY
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1214 UNIVERSITY OF CALIFORNIA - BERKELEY **2153**
MOCHA-MODULARITY IN MODEL CHECKING
 05/05/1998 - 04/30/1999 FY98: \$450,000 Total: \$450,000
Prin. Invest.: T A HENZINGER
Tech. Officer: ARC/M R LOWREY
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1255 UNIVERSITY OF CALIFORNIA - BERKELEY **2154**
HIGH SENSITIVITY HIGH RESOLUTION VIDEO CAMERA FOR OPTICAL
IMAGING OF DYNAMIC RETINAL ACTIVITY
 08/26/1998 - 09/30/1998 FY98: \$19,750 Total: \$19,750
Prin. Invest.: F S WERBLIN
Tech. Officer: ARC/C C JORGENSEN, ARC/C L JACKSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 1252 UNIVERSITY OF CALIFORNIA - BERKELEY **2155**
A FUNDAMENTAL STUDY OF SMOLDERING COMBUSTION IN MICROGRAV-
ITY
 03/15/1991 - 04/13/1997 FY98: \$7,988 Total: \$970,614
Prin. Invest.: A C FERNANDEZ-PELLO, P J PAGNI
Tech. Officer: LERC/S OLSON
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1941 UNIVERSITY OF CALIFORNIA - BERKELEY **2156**
FLUID INTERFACE BEHAVIOR UNDER LOW & ZERO GRAVITY CONDITIONS
 08/15/1996 - 11/30/1998 FY98: \$0 Total: \$200,433
Prin. Invest.: P CONCUS, R FINN
Tech. Officer: LERC/M M WEISLOGEL
CASE Category: 21 - MATHEMATICS

NAG 3 2026 UNIVERSITY OF CALIFORNIA - BERKELEY **2157**
A FUNDAMENTAL STUDY OF SMOLDERING COMBUSTION IN MICROGRAV-
ITY
 03/14/1997 - 03/15/2002 FY98: \$98,601 Total: \$267,606
Prin. Invest.: A C FERNANDEZ-PELLO
Tech. Officer: LERC/D L URBAN
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2103 UNIVERSITY OF CALIFORNIA - BERKELEY **2158**
LOW EMISSION, HIGH PERFORMANCE GAS TURBINE ENGINES EXPERI-
MENT AND MODEL RESEARCH AND DEVELOPMENT
 03/04/1998 - 01/07/2001 FY98: \$129,212 Total: \$129,212
Prin. Invest.: R DIBBLE
Tech. Officer: LERC/R R TACINA, LERC/N S LIU
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2105 UNIVERSITY OF CALIFORNIA - BERKELEY **2159**
MICROGRAVITY EFFECTS ON NEAR-BUBBLE MICROSCALE TRANSPORT
DURING BOILING OF BINARY FLUID MIXTURES
 02/26/1998 - 12/31/2000 FY98: \$49,744 Total: \$49,744
Prin. Invest.: V P CAREY
Tech. Officer: LERC/B J MOTIL
CASE Category: 13 - PHYSICS

NAG 3 2152 UNIVERSITY OF CALIFORNIA - BERKELEY **2160**
WEAKLY NONLINEAR DESCRIPTION OF PARAMETRIC INSTABILITIES
 06/09/1998 - 12/31/2002 FY98: \$75,000 Total: \$75,000
Prin. Invest.: E KNOBLOCK
Tech. Officer: LERC/J R SKARDA
CASE Category: 13 - PHYSICS

NAG 4 124 UNIVERSITY OF CALIFORNIA - BERKELEY **2161**
CONTROL-ORIENTED NONLINEAR MODELING OF FLUTTER IN FLIGHT
SYSTEMS
 04/08/1997 - 11/30/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: A PACKARD, P KAMESHWAR
Tech. Officer: DFR/M BRENNER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 696 UNIVERSITY OF CALIFORNIA - BERKELEY **2162**
A PROPOSAL TO FLY THE EUV/FUV SPECTROMETER ON ORFEUS FOR
ASTRO-SPAS I & II
 12/18/1992 - 02/28/1999 FY98: \$250,000 Total: \$2,795,676
Prin. Invest.: M V HURWITZ
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 959 UNIVERSITY OF CALIFORNIA - BERKELEY **2163**
ELECTRON REFLECTOMETER ADDITION TO THE MAGNETIC FIELDS
INVESTIGATION ON THE MARS OBSERVER MISSION
 08/01/1987 - 01/14/1999 FY98: \$137,500 Total: \$1,622,700
Prin. Invest.: R P LIN, C F MCKEE
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 1318 UNIVERSITY OF CALIFORNIA - BERKELEY **2164**
RESEARCH USING THE COBE SATELLITE
 12/14/1989 - 12/31/1997 FY98: \$0 Total: \$1,964,300
Prin. Invest.: G F SMOOT
Tech. Officer: GSFC/J MATHER
CASE Category: 11 - ASTRONOMY

NAG 5 1360 UNIVERSITY OF CALIFORNIA - BERKELEY 2165
**A STUDY OF THE UNIFORMITY OF THE CATALOG OF GALAXIES
 EXTRACTED FROM THE IRAS DAT**
 04/12/1990 - 11/30/1997 FY98: \$0 Total: \$506,400
Prin. Invest.: J SILK
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2088 UNIVERSITY OF CALIFORNIA - BERKELEY 2166
**SUPERNOVA REMNANT BLAST-WAVE INTERACTIONS WITH INTERSTELLAR
 CLOUDS: CAST STUDIES FROM CYGNUS LOOP**
 09/02/1992 - 05/14/1998 FY98: \$0 Total: \$147,912
Prin. Invest.: J R GRAHAM
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2586 UNIVERSITY OF CALIFORNIA - BERKELEY 2167
FE L-SHELL LINE EMISSION FROM SEYFERT GALAXIES
 05/05/1994 - 10/31/1996 FY98: -\$19,791 Total: \$209
Prin. Invest.: S KHAN
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2620 UNIVERSITY OF CALIFORNIA - BERKELEY 2168
**LOW METALLICITY IN VERY HOT WHITE DWARFS: IMPLICATION ON MASS
 LOSS PROCESSES IN YOUNG D**
 06/15/1994 - 12/31/1997 FY98: \$0 Total: \$57,072
Prin. Invest.: J DUPUIS
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 2636 UNIVERSITY OF CALIFORNIA - BERKELEY 2169
**A TEST FOR THE HOMOGENEITY OF THE HELIUM IONIZATION FRACTION
 IN THE LOCAL ISM.**
 07/05/1994 - 07/14/1997 FY98: \$0 Total: \$134,557
Prin. Invest.: S YENNEZ
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 12 - CHEMISTRY

NAG 5 2718 UNIVERSITY OF CALIFORNIA - BERKELEY 2170
CONTINUED ANALYSIS OF GEOTAIL ELECTRIC FIELD DATA
 09/07/1994 - 03/31/1999 FY98: \$70,000 Total: \$331,500
Prin. Invest.: F S MOZER
Tech. Officer: GSFC/D FAIRFIELD
CASE Category: 11 - ASTRONOMY

NAG 5 2815 UNIVERSITY OF CALIFORNIA - BERKELEY 2171
**ANALYSIS OF DATA FROM THE 3-D PLASMA AND ENERGETIC PARTICLE
 EXPERIMENT ON THE GGS WIND SPACECRAFT**
 12/12/1994 - 07/14/1998 FY98: \$0 Total: \$3,056,300
Prin. Invest.: R P LIN
Tech. Officer: GSFC/K W OGLIVIE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 2819 UNIVERSITY OF CALIFORNIA - BERKELEY 2172
**THEORETICAL STUDIES OF THERMONUCLEAR PROCESSING AND NON-
 RADIAL OSCILLATIONS OF ACCRETING**
 12/12/1994 - 12/31/1998 FY98: \$0 Total: \$183,000
Prin. Invest.: L BILDSTEN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2875 UNIVERSITY OF CALIFORNIA - BERKELEY 2173
**A SCIENCE INFRASTRUCTURE FOR ACCESS TO EARTH AND SPACE SCI-
 ENCE DATA THROUGH THE NATION'S SCIENCE...**
 01/19/1995 - 01/31/1999 FY98: \$0 Total: \$1,050,000
Prin. Invest.: C CHRISTIAN
Tech. Officer: GSFC/F HASLER
CASE Category: 99 - MULTI-INTERDISCIPLINARY, OTHER

NAG 5 3002 UNIVERSITY OF CALIFORNIA - BERKELEY 2174
COSMOLOGICAL STUDIES OF THE COSMIC MICROWAVE BACKGROUND
 07/14/1995 - 07/31/1997 FY98: \$0 Total: \$167,400
Prin. Invest.: J SILK
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3019 UNIVERSITY OF CALIFORNIA - BERKELEY 2175
PROBING THE MOLECULAR CONTENT OF HIGH LATITUDE GAS
 07/21/1995 - 07/31/1997 FY98: \$0 Total: \$69,200
Prin. Invest.: M HURWITZ
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3073 UNIVERSITY OF CALIFORNIA - BERKELEY 2176
PHYSICS OF ROTATION-POWERED PULSAR AND THEIR NEBULAE
 09/25/1995 - 07/30/1999 FY98: \$64,000 Total: \$192,000
Prin. Invest.: J ARONS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3081 UNIVERSITY OF CALIFORNIA - BERKELEY 2177
THEORETICAL STUDIES IN STAR FORMATION
 11/01/1995 - 07/14/1999 FY98: \$0 Total: \$150,000
Prin. Invest.: S N STAHLER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3126 UNIVERSITY OF CALIFORNIA - BERKELEY 2178
**FAR ULTRAVIOLET STUDIES OF SOLAR TRANSIENT PHENOMENA USING
 THE SOHO SATELLITE**
 10/19/1995 - 11/31/1998 FY98: \$0 Total: \$250,000
Prin. Invest.: D N SIEGMUND
Tech. Officer: GSFC/D T POLAND
CASE Category: 11 - ASTRONOMY

NAG 5 3146 UNIVERSITY OF CALIFORNIA - BERKELEY 2179
THEORETICAL STUDIES OF THE EARLY UNIVERSE
 11/14/1995 - 11/14/1998 FY98: \$0 Total: \$300,000
Prin. Invest.: J SILK
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3182 UNIVERSITY OF CALIFORNIA - BERKELEY 2180
**MISSION OPERATIONS AND DATA ANALYSIS FOR THE ELECTRIC FIELD
 EXPERIMENT ON POLAR**
 03/13/1996 - 12/31/1998 FY98: \$0 Total: \$1,806,918
Prin. Invest.: F S MOZER
Tech. Officer: GSFC/R A HOFFMAN
CASE Category: 13 - PHYSICS

NAG 5 3183 UNIVERSITY OF CALIFORNIA – BERKELEY **2181**
OBSERVATIONS OF FLARE STARS WITH ALEXIS
 03/15/1996 – 06/14/1997 FY98: \$0 Total: \$39,500
Prin. Invest.: O H SIEGMUND
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3280 UNIVERSITY OF CALIFORNIA – BERKELEY **2182**
HIGH RESOLUTION OBSERVATIONS FROM SPACE: NEW INSIG HTS INTO DARK MATTER AND GALAXY FORMATION
 07/03/1996 – 07/14/1999 FY98: \$204,200 Total: \$299,700
Prin. Invest.: T BROADHURST
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3399 UNIVERSITY OF CALIFORNIA – BERKELEY **2183**
THE SPECTRAL EVOLUTION OF HOT WHITE DWARFS AS SEEN BY EUVE
 09/13/1996 – 09/14/1998 FY98: \$0 Total: \$59,600
Prin. Invest.: D DUPUIS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3424 UNIVERSITY OF CALIFORNIA – BERKELEY **2184**
A MULTIWAVELENGTH OBSERVATION OF THE GAS IN V471 T AURI
 09/18/1996 – 09/30/1997 FY98: \$0 Total: \$18,000
Prin. Invest.: O H SIEGMUND
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 3470 UNIVERSITY OF CALIFORNIA – BERKELEY **2185**
DISCOVERING NEW SOURCES WITH THE EUVE RIGHT ANGLE
 10/30/1996 – 06/30/1998 FY98: \$8,951 Total: \$49,951
Prin. Invest.: D CHRISTIAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3471 UNIVERSITY OF CALIFORNIA – BERKELEY **2186**
DANCING WITH DISKS: TEMPORAL BEHAVIOR OF T TAURI S
 10/30/1996 – 10/31/1998 FY98: \$57,800 Total: \$109,981
Prin. Invest.: G S BASRI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3499 UNIVERSITY OF CALIFORNIA – BERKELEY **2187**
COSMOLOGICAL STUDIES OF THE COSMIC MICROWAVE BACKG
 11/27/1996 – 11/30/1998 FY98: \$48,600 Total: \$102,462
Prin. Invest.: J I SILK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3500 UNIVERSITY OF CALIFORNIA – BERKELEY **2188**
ADDING THE MARS '96 GAMMA-RAY BURST EXPERIMENT TO RY NETWORK
 11/27/1996 – 11/30/1998 FY98: \$32,900 Total: \$69,100
Prin. Invest.: K C HURLEY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3520 UNIVERSITY OF CALIFORNIA – BERKELEY **2189**
SOLAR X-RAY BURSTS AND ELECTRON ACCELERATION DOWN
 11/13/1996 – 11/14/1997 FY98: \$0 Total: \$20,000
Prin. Invest.: R P LIN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3556 UNIVERSITY OF CALIFORNIA – BERKELEY **2190**
A MULTI-WAVELENGTH STUDY OF A COMPLETE SAMPLE OF N
 01/04/1997 – 12/14/1998 FY98: \$124,000 Total: \$245,000
Prin. Invest.: A V FILIPPENKO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3585 UNIVERSITY OF CALIFORNIA – BERKELEY **2191**
1. ADDING MARS96 GAMMA-RAY BURST EXPER. TO THE 3RD 2. ANALYSIS, PUB. & ARCHIVING OF GAMMA-RAY BURST D
 12/11/1996 – 12/14/1997 FY98: \$0 Total: \$19,500
Prin. Invest.: K C HURLEY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3596 UNIVERSITY OF CALIFORNIA – BERKELEY **2192**
MISSION OPERATIONS AND DATA ANALYSIS FOR THE FAST AURORAL SNAPSHOT EXPLORER (FAST) MISSION
 01/25/1997 – 12/31/1998 FY98: \$3,391,000 Total: \$6,989,000
Prin. Invest.: C W CARLSON
Tech. Officer: GSFC/R F PFAFF, JR.
CASE Category: 12 – CHEMISTRY

NAG 5 3599 UNIVERSITY OF CALIFORNIA – BERKELEY **2193**
GALACTIC BLACK HOLES AND POSITRON ANNIHILATION RADIATION/ TRANSFERRED FROM NAG5 3397
 03/07/1997 – 04/30/1998 FY98: \$0 Total: \$45,000
Prin. Invest.: D SMITH
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3655 UNIVERSITY OF CALIFORNIA – BERKELEY **2194**
EXPERIMENTAL STUDIES OF CORE/MANTLE VOLATILE EQUIL DIFFERENTIATION
 03/05/1997 – 11/30/1997 FY98: \$0 Total: \$68,000
Prin. Invest.: R JEANLOZ
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3809 UNIVERSITY OF CALIFORNIA – BERKELEY **2195**
THE DYNAMICS OF PHOTON BUBBLES IN ACCRETION POWERS
 01/20/1997 – 01/14/1999 FY98: \$73,000 Total: \$143,000
Prin. Invest.: R I KLIEN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3811 UNIVERSITY OF CALIFORNIA – BERKELEY **2196**
IMPROVING THE 3RD INTERPLANETARY NETWORK OF GAMMA-
 01/14/1997 – 01/14/1999 FY98: \$31,000 Total: \$73,000
Prin. Invest.: K C HURLEY
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3812 UNIVERSITY OF CALIFORNIA - BERKELEY **2197**
POSITRON ANNIHILATION IN GRS 1915+105
 01/14/1997 - 01/14/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: D M SMITH
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3813 UNIVERSITY OF CALIFORNIA - BERKELEY **2198**
HIDDEN COMPANIONS TO EARLY TYPE STARS
 01/14/1997 - 01/14/1999 FY98: \$0 Total: \$6,000
Prin. Invest.: N CRAIG
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 3913 UNIVERSITY OF CALIFORNIA - BERKELEY **2199**
PHOTOCATHODE, MICROCHANNEL PLATE AND DELAY LINE TELESCOPE UV-VISIBLE DETECTOR SYSTEMS
 02/21/1997 - 06/14/1999 FY98: \$222,500 Total: \$480,600
Prin. Invest.: D H SIEGMUND
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 3916 UNIVERSITY OF CALIFORNIA - BERKELEY **2200**
DEVELOPMENT OF A RADIO TOMOGRAPHY MISSION FOR INVESTIGATING MAGNETOSPHERE
 02/21/1997 - 02/14/1999 FY98: \$0 Total: \$160,000
Prin. Invest.: D E ERGUN
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 3920 UNIVERSITY OF CALIFORNIA - BERKELEY **2201**
USING XTE AS PART OF THE IPN TO DERIVE ACCURATE GRAVITATIONAL REDSHIFT
 02/12/1997 - 02/14/1998 FY98: \$0 Total: \$10,000
Prin. Invest.: K HURLEY
Tech. Officer: GSFC/S BARTHELMY
CASE Category: 11 - ASTRONOMY

NAG 5 3941 UNIVERSITY OF CALIFORNIA - BERKELEY **2202**
DEVELOPMENT OF DATA ANALYSIS, COMPRESSION AND VISUALIZATION OF LARGE DATA SETS IN ASTROPHYSICS AND COSMOLOGY
 03/03/1997 - 02/28/1999 FY98: \$88,000 Total: \$242,000
Prin. Invest.: D SILK
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 3951 UNIVERSITY OF CALIFORNIA - BERKELEY **2203**
HIGH EFFICIENCY EUV/FUV INTERFEROMETRIC SPECTROSCOPY
 02/12/1997 - 02/14/1999 FY98: \$125,000 Total: \$225,000
Prin. Invest.: D EDELSTEIN
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4090 UNIVERSITY OF CALIFORNIA - BERKELEY **2204**
FILTERS FOR THE FAR ULTRAVIOLET REGION
 03/18/1997 - 02/28/1998 FY98: \$65,900 Total: \$132,900
Prin. Invest.: D H SIEGMUND
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4109 UNIVERSITY OF CALIFORNIA - BERKELEY **2205**
PRE-LAUNCH EQUATOR-SOLAR EFFORT
 04/01/1997 - 09/30/1998 FY98: \$0 Total: \$85,000
Prin. Invest.: F P LIN
Tech. Officer: GSFC/M HESSE
CASE Category: 13 - PHYSICS

NAG 5 4110 UNIVERSITY OF CALIFORNIA - BERKELEY **2206**
MONITORING OBSERVATIONS OF BLACK HOLE CANDIDATES 11758-258
 03/24/1997 - 03/31/1998 FY98: \$0 Total: \$10,017
Prin. Invest.: D M SMITH
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4181 UNIVERSITY OF CALIFORNIA - BERKELEY **2207**
THE PHYSICS OF FLARING ATMOSPHERES
 03/19/1997 - 07/14/1999 FY98: \$10,208 Total: \$111,208
Prin. Invest.: J H FISHER
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 4194 UNIVERSITY OF CALIFORNIA - BERKELEY **2208**
SILICON DIFFRACTION GRATINGS FOR ULTRAVIOLET APPLICATIONS
 03/25/1997 - 03/31/1999 FY98: \$83,167 Total: \$168,067
Prin. Invest.: J V HURWITZ
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4202 UNIVERSITY OF CALIFORNIA - BERKELEY **2209**
JOVIAN RING SYSTEM
 03/17/1997 - 03/31/1998 FY98: \$0 Total: \$37,000
Prin. Invest.: D DE PATER
Tech. Officer: GSFC/WHUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4226 UNIVERSITY OF CALIFORNIA - BERKELEY **2210**
IMAGING THE DISKS AROUND YSO'S WITH THE BIMA MM ARRAY
 03/25/1997 - 03/31/1998 FY98: \$0 Total: \$35,000
Prin. Invest.: D J WELCH
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4411 UNIVERSITY OF CALIFORNIA - BERKELEY **2211**
AN X-RAY SURVEY OF SYMBIOTIC STARS
 05/01/1997 - 04/30/1998 FY98: \$0 Total: \$15,579
Prin. Invest.: L BILDSTEN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4451 UNIVERSITY OF CALIFORNIA - BERKELEY **2212**
BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF THE COSMIC BACKGROUND ON ANGULAR SCALES OF 0.2 TO 40 DEGREES
 06/16/1997 - 01/31/1999 FY98: \$150,000 Total: \$300,000
Prin. Invest.: D L RICHARD
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4521 UNIVERSITY OF CALIFORNIA – BERKELEY **2213**
CARBON AND SILICON CARBIDE CLUSTERS AND THEIR RELATIONSHIP TO DUST LABORATORY INVESTIGATION OF THE UNIDENTIFIED
 05/08/1997 – 04/30/2000 FY98: \$100,000 Total: \$280,000
Prin. Invest.: D J SAYKALLY
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 – ASTRONOMY

NAG 5 4758 UNIVERSITY OF CALIFORNIA – BERKELEY **2214**
A ROSAT-HRI IMAGE OF THE CYGNUS LOOP
 06/17/1997 – 06/30/1998 FY98: \$0 Total: \$8,100
Prin. Invest.: J R GRAHAM
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 4790 UNIVERSITY OF CALIFORNIA – BERKELEY **2215**
A SEARCH FOR NONTHERMAL X-RAY EMISSION FROM RADIO
 06/17/1997 – 06/30/1999 FY98: \$0 Total: \$22,700
Prin. Invest.: J ARONS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4851 UNIVERSITY OF CALIFORNIA – BERKELEY **2216**
SOLIDS IN NEBULAR DISKS
 06/26/1997 – 03/31/1998 FY98: \$0 Total: \$45,000
Prin. Invest.: D H SHU
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4865 UNIVERSITY OF CALIFORNIA – BERKELEY **2217**
A HARD X-RAY SURVEY OF RADIO-LOUD AGNS
 07/08/1997 – 06/30/1998 FY98: -\$9,800 Total: \$7,310
Prin. Invest.: A V FILIPPENKO
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4882 UNIVERSITY OF CALIFORNIA – BERKELEY **2218**
TOO OBSERVATIONS OF SOFT GAMMA REPEATERS
 07/15/1997 – 07/14/1998 FY98: \$0 Total: \$5,000
Prin. Invest.: K HURLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4884 UNIVERSITY OF CALIFORNIA – BERKELEY **2219**
PAH EMISSION BANDS IN SELECTED PNE
 07/28/1997 – 07/31/1999 FY98: \$0 Total: \$75,000
Prin. Invest.: M COHEN
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4898 UNIVERSITY OF CALIFORNIA – BERKELEY **2220**
KINETIC ANALYSIS OF LANGMUIR WAVE PACKETS IN THE E
 06/20/1997 – 06/30/1999 FY98: \$21,333 Total: \$83,333
Prin. Invest.: D E ERGUN
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 – PHYSICS

NAG 5 4899 UNIVERSITY OF CALIFORNIA – BERKELEY **2221**
THE FORMATION AND MAINTENANCE OF THE ZONAL WINDS OF
 06/20/1997 – 04/30/1999 FY98: \$0 Total: \$50,000
Prin. Invest.: D S MARCUS
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4979 UNIVERSITY OF CALIFORNIA – BERKELEY **2222**
MARS/TITAN/MOON SOLAR WIND INTERACTIONS
 07/09/1997 – 07/14/1999 FY98: \$0 Total: \$50,000
Prin. Invest.: D G LUHMANN
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4992 UNIVERSITY OF CALIFORNIA – BERKELEY **2223**
HISTORICAL STUDIES ON EXTRATERRESTRIAL MATERIALS
 06/27/1997 – 12/31/1998 FY98: \$125,000 Total: \$275,000
Prin. Invest.: D NISHIZUMI
Tech. Officer: GSFC/D F NAVA
CASE Category: 12 – CHEMISTRY

NAG 5 5092 UNIVERSITY OF CALIFORNIA – BERKELEY **2224**
STUDY OF ULTRAHEAVY COSMIC RAYS WITH HNC ON THE RUSSIAN SPACE STATION MIR
 11/14/1996 – 01/31/1999 FY98: \$100,000 Total: \$220,000
Prin. Invest.: E F FRANCE
Tech. Officer: GSFC/M C NEEDLEMAN, GSFC/E A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5102 UNIVERSITY OF CALIFORNIA – BERKELEY **2225**
ASTROPHYSICAL GAMMA-RAY SPECTROSCOPY WITH THE HIGH RESOLUTION GAMMA-RAY (HIRES)
 02/11/1997 – 10/31/1998 FY98: \$367,000 Total: \$1,304,600
Prin. Invest.: R W LIN
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5107 UNIVERSITY OF CALIFORNIA – BERKELEY **2226**
ECCO: THE EXTREMELY HEAVY COSMIC RAY COMPOSITION OBSERVER
 04/02/1997 – 03/31/1999 FY98: \$0 Total: \$200,000
Prin. Invest.: A J WESTPHAL
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5132 UNIVERSITY OF CALIFORNIA – BERKELEY **2227**
HIGH PERFORMANCE MICROCHANNEL PLATE DETECTOR TECHNOLOGIES FOR SOFT X-RAY ASTROPHYSICS
 03/13/1997 – 03/31/1998 FY98: -\$35,000 Total: \$50,000
Prin. Invest.: O SIEGMUND
Tech. Officer: GSFC/B FLOWERS
CASE Category: 13 – PHYSICS

NAG 5 5146 UNIVERSITY OF CALIFORNIA – BERKELEY **2228**
DEVELOPMENT OF GAS MICROSTRUCTURE DETECTORS (GMSD) FOR GAMMA-RAY TELESCOPES
 07/02/1997 – 11/30/1998 FY98: -\$48,101 Total: \$101,130
Prin. Invest.: C HAILEY
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 – PHYSICS

NAG 5 5197 UNIVERSITY OF CALIFORNIA – BERKELEY **2229**
**PECASE PROGRAM FUNDING FOR THE FIRST YEAR OF RESEARCH;
 SELECTED**
 05/21/1998 – 05/31/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: M V HURWITZ
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 – PHYSICS

NAG 5 6052 UNIVERSITY OF CALIFORNIA – BERKELEY **2230**
MODERN STATISTICAL METHODS FOR HELIOSEISMIC SPECTR
 07/28/1997 – 06/30/1998 FY98: \$0 Total: \$49,800
Prin. Invest.: D STARK
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 – PHYSICS

NAG 5 6103 UNIVERSITY OF CALIFORNIA – BERKELEY **2231**
NEW DIRECTIONS IN COMETARY SPECTROSCOPY
 07/24/1997 – 07/31/1998 FY98: \$0 Total: \$53,000
Prin. Invest.: D SPINRAD
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 – ASTRONOMY

NAG 5 6106 UNIVERSITY OF CALIFORNIA – BERKELEY **2232**
**LOW-COST MECHANICAL CRYOGENIC COOLERS FOR GERMANIUM SUB-
 ORBITAL SOLAR MISSIONS**
 07/24/1997 – 06/30/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: D LIN
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 6128 UNIVERSITY OF CALIFORNIA – BERKELEY **2233**
THE INTERRELATION OF SOFT AND HARD X-RAY EMISSION
 08/04/1997 – 06/30/1999 FY98: \$11,667 Total: \$97,167
Prin. Invest.: D FISHER
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 6262 UNIVERSITY OF CALIFORNIA – BERKELEY **2234**
RELATIONSHIP TO BURSTY BULK FLOW EVENTS AND SUBSTO
 08/21/1997 – 03/31/1999 FY98: \$0 Total: \$35,000
Prin. Invest.: D ANGELOPOULOS
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 – PHYSICS

NAG 5 6347 UNIVERSITY OF CALIFORNIA – BERKELEY **2235**
TRANSDUCTION OF THE GRAVITY SIGNAL IN MAIZE ROOTS
 09/23/1997 – 09/30/1998 FY98: \$0 Total: \$77,450
Prin. Invest.: D FELDMAN
Tech. Officer: GSFC/T K SCOTT
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 6515 UNIVERSITY OF CALIFORNIA – BERKELEY **2236**
**CENTER FOR ASSESSMENT AND MONITORING OF FOREST AND ENVI-
 RONMENTAL RESOURCES (CAMFER) AND THE EARTH R**
 10/23/1997 – 01/31/1999 FY98: \$500,000 Total: \$500,000
Prin. Invest.: D BRIMHALL
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6551 UNIVERSITY OF CALIFORNIA – BERKELEY **2237**
**ORIGIN AND EVOLUTION OF WHITE DWARF STARS: THE EARLY YEARS
 (LTSA)**
 11/21/1997 – 11/30/1998 FY98: \$84,300 Total: \$84,300
Prin. Invest.: S VENNES
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6552 UNIVERSITY OF CALIFORNIA – BERKELEY **2238**
**FOREGROUND ANALYSIS & REMOVAL FOR FUTURE CMB EXPERIMENTS
 (LTSA)**
 11/21/1997 – 11/30/1998 FY98: \$107,000 Total: \$107,000
Prin. Invest.: G F SMOOT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6587 UNIVERSITY OF CALIFORNIA – BERKELEY **2239**
END-TO-END PROBLEMS IN EOSDIS
 11/07/1997 – 11/31/1998 FY98: \$642,300 Total: \$642,300
Prin. Invest.: M STONEBRAKER
Tech. Officer: GSFC/R KRIEDER
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 6593 UNIVERSITY OF CALIFORNIA – BERKELEY **2240**
LAND-USE AND LAND-COVER CHANGE IN SONORA, MEXICO
 11/18/1997 – 11/14/2000 FY98: \$192,169 Total: \$192,169
Prin. Invest.: T J BENNING
Tech. Officer: GSFC/A C JANETOS
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 6684 UNIVERSITY OF CALIFORNIA – BERKELEY **2241**
CHALLENGES OF THE DIFFUSION THEORY IN HOT WHITE DWARFS
 11/25/1997 – 11/30/1998 FY98: \$11,200 Total: \$11,200
Prin. Invest.: P CHAYER
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 6705 UNIVERSITY OF CALIFORNIA – BERKELEY **2242**
EUV SPECTROSCOPY OF ULTRAMASSIVE WHITE DWARFS
 12/16/1997 – 11/14/1998 FY98: \$12,160 Total: \$12,160
Prin. Invest.: J DUPUIS
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 6706 UNIVERSITY OF CALIFORNIA – BERKELEY **2243**
**THE DISTRIBUTION AND VARIABILITY OF LOCAL INTERSTELLAR HE IN
 THE HELIOSPHERIC HELIOSPHERE**
 12/16/1997 – 11/14/1998 FY98: \$11,520 Total: \$11,520
Prin. Invest.: B FLYNN
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 6707 UNIVERSITY OF CALIFORNIA – BERKELEY **2244**
HIDDEN COMPANIONS TO EARLY TYPE STARS
 12/18/1997 – 11/14/1998 FY98: \$12,160 Total: \$12,160
Prin. Invest.: S VENNES
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 6742 UNIVERSITY OF CALIFORNIA - BERKELEY **2245**
LAMBDA SCO: A 15 MILLION YEAR OLD B21V STAR WITH WD COMPANION? A SCAN WITH THE EUVE DS TEL
 12/19/1997 - 12/31/1998 FY98: \$20,160 Total: \$20,160
Prin. Invest.: T BERGHOFER
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 6748 UNIVERSITY OF CALIFORNIA - BERKELEY **2246**
DETERMINATION OF THE PROPERTIES OF HE IN THE LOCAL INTERSTELLAR MEDIUM FROM THE EUVE ALL-SKY SURVEY
 01/12/1998 - 12/31/1998 FY98: \$30,155 Total: \$30,155
Prin. Invest.: B FLYNN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6870 UNIVERSITY OF CALIFORNIA - BERKELEY **2247**
A STUDY OF MEV TERRESTRIAL X-RAY BURSTS WITH AN ARTIC LONG DURATION BALLOON FLIGHT AND ISTP
 01/13/1998 - 01/31/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: R LIN
Tech. Officer: GSFC/L ZANETTI
CASE Category: 13 - PHYSICS

NAG 5 6890 UNIVERSITY OF CALIFORNIA - BERKELEY **2248**
VLA MONITORING OF JUPITER IN 3-D AT $\lambda = 6-90$ CM: 1981 - 1996
 01/21/1998 - 12/31/1998 FY98: \$63,902 Total: \$63,902
Prin. Invest.: I DE PATER, NONE
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 6895 UNIVERSITY OF CALIFORNIA - BERKELEY **2249**
COMPARATIVE ANALYSIS OF MGS AND PVO OBSERVATIONS FROM AN AEROMICAL PERSPECTIVE
 01/16/1998 - 03/31/1999 FY98: \$49,300 Total: \$49,300
Prin. Invest.: J LUHMANN
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 6919 UNIVERSITY OF CALIFORNIA - BERKELEY **2250**
X-RAY EMISSION FROM WHITE DWARF SYMBIOTIC BINARIES - ASCA PROPOSAL
 01/28/1998 - 01/31/1999 FY98: \$17,262 Total: \$17,262
Prin. Invest.: L BILDSTEN
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6928 UNIVERSITY OF CALIFORNIA - BERKELEY **2251**
ANALYSIS OF DATA FROM THE 3-D PLASMA AND ENERGETIC PARTICLE EXPERIMENT ON THE GGS WIND SPACECRAFT
 02/04/1998 - 01/31/1999 FY98: \$860,000 Total: \$860,000
Prin. Invest.: R P LIN
Tech. Officer: GSFC/K OBILVIE
CASE Category: 13 - PHYSICS

NAG 5 6932 UNIVERSITY OF CALIFORNIA - BERKELEY **2252**
GRANT
 01/29/1998 - 01/31/1999 FY98: \$60,000 Total: \$60,000
Prin. Invest.: C W CARLSON
Tech. Officer: GSFC/M HESSE
CASE Category: 13 - PHYSICS

NAG 5 6985 UNIVERSITY OF CALIFORNIA - BERKELEY **2253**
CHARACTERIZATION AND NUMERICAL SIMULATION OF FAST SOLITARY WAVES IN THE AURORAL IONOSPHERE
 02/10/1998 - 03/31/1999 FY98: \$70,400 Total: \$70,400
Prin. Invest.: R E ERGUN
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7013 UNIVERSITY OF CALIFORNIA - BERKELEY **2254**
1. TESTING ACCRETION MODELS OF AM HER2. THE NEW CV EUVE J2115-586
 02/11/1998 - 06/12/1998 FY98: \$0 Total: \$0
Prin. Invest.: D J CHRISTIAN
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 7018 UNIVERSITY OF CALIFORNIA - BERKELEY **2255**
WIRE: A DEEP MULTI-WAVELENGTH SURVEY OF THE GALACTIC PLANE
 02/18/1998 - 02/14/1999 FY98: \$20,000 Total: \$20,000
Prin. Invest.: M COHEN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7025 UNIVERSITY OF CALIFORNIA - BERKELEY **2256**
A RAPID-RESPONSE SEARCH FOR GAMMA-RAY BURST OPTICAL EMISSION
 02/18/1998 - 02/14/1999 FY98: \$38,200 Total: \$38,200
Prin. Invest.: S PERLMUTTER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7063 UNIVERSITY OF CALIFORNIA - BERKELEY **2257**
DEVELOPMENT OF CDZNT DETECTORS FOR LOW-ENERGY GAMMA-RAY ASTRONOMY
 02/26/1998 - 01/31/1999 FY98: \$31,600 Total: \$31,600
Prin. Invest.: K C HURLEY
Tech. Officer: GSFC/R A BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7173 UNIVERSITY OF CALIFORNIA - BERKELEY **2258**
AN ISOTOPIC APPROACH FOR DETERMINING THE INDUSTRIAL FRACTION OF THE TOTAL CH₃BR SOURCE TO THE A
 03/24/1998 - 02/28/2001 FY98: \$70,000 Total: \$70,000
Prin. Invest.: A GOLDSTEIN
Tech. Officer: GSFC/P DECOLA
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7174 UNIVERSITY OF CALIFORNIA - BERKELEY **2259**
IMPLEMENTATION AND DEPLOYMENT OF A GENERALIZED SEARCH TREE FOR MANAGING MULTIPLE DATA TYPES
 04/06/1998 - 09/30/1999 FY98: \$193,868 Total: \$193,868
Prin. Invest.: J M HELLERSTEIN
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7181 UNIVERSITY OF CALIFORNIA - BERKELEY **2260**
OBSERVATIONS OF THE LUNAR ATMOSPHERE
 03/16/1998 - 04/30/1999 FY98: \$27,000 Total: \$27,000
Prin. Invest.: B FLYNN
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 7188 UNIVERSITY OF CALIFORNIA - BERKELEY **2261**
RESTORATION OF ISEE-3/MCE X-RAY DATA
 03/26/1998 - 06/30/1999 FY98: \$44,100 Total: \$44,100
Prin. Invest.: G H FISHER
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 7231 UNIVERSITY OF CALIFORNIA - BERKELEY **2262**
SEARCH FOR EUV EMISSION FROM NEUTRON STARS
 04/09/1998 - 04/14/1999 FY98: \$10,560 Total: \$10,560
Prin. Invest.: S BOWYER
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 7265 UNIVERSITY OF CALIFORNIA - BERKELEY **2263**
GALACTIC BLACK HOLES AND POSITRON ANNIHILATION RADIATION
 04/29/1998 - 11/30/1998 FY98: \$32,000 Total: \$32,000
Prin. Invest.: D M SMITH
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7274 UNIVERSITY OF CALIFORNIA - BERKELEY **2264**
LOTIS: A SIMULTANEOUS GAMMA-RAY BURST OPTICAL COUN TERPART
SEARCH EX-PERIMENT
 04/16/1998 - 04/30/1999 FY98: \$2,000 Total: \$2,000
Prin. Invest.: K C HURLEY
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7311 UNIVERSITY OF CALIFORNIA - BERKELEY 2265
A STUDY OF CIRCUMSTELLAR GAS IN BETA PIC LIKE PROT OPLANETARY
DISKS
 04/22/1998 - 04/30/2001 FY98: \$30,000 Total: \$30,000
Prin. Invest.: B Y WELSH
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7343 UNIVERSITY OF CALIFORNIA - BERKELEY **2266**
IDENTIFYING SGR1900+14, THE THIRD SOFT GAMMA REPEATER, WITH
ASCA
 05/07/1998 - 05/14/1999 FY98: \$20,400 Total: \$20,400
Prin. Invest.: K C HURLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7351 UNIVERSITY OF CALIFORNIA - BERKELEY **2267**
AN OBSERVATION TEST OF TRANSITION REGION LINES AS A PRESSURE
GAUGE
 04/28/1998 - 04/30/1999 FY98: \$41,000 Total: \$41,000
Prin. Invest.: O SIEGMUND
Tech. Officer: GSFC/A POLAND
CASE Category: 13 - PHYSICS

NAG 5 7353 UNIVERSITY OF CALIFORNIA - BERKELEY **2268**
INTENSITY DISTRIBUTION OF THE SOLAR TRANSITION REGION
 04/28/1998 - 04/30/1999 FY98: \$39,200 Total: \$39,200
Prin. Invest.: G FISHER
Tech. Officer: GSFC/A POLAND
CASE Category: 13 - PHYSICS

NAG 5 7356 UNIVERSITY OF CALIFORNIA - BERKELEY 2269
EXTENSION OF "SCIENCE INFORMATION INFRASTRUCTURE" GRANT
NAG5-2875 CONTINUED DEVELOPMENT AND DI
 05/21/1998 - 01/31/1999 FY98: \$150,000 Total: \$150,000
Prin. Invest.: HAWKINS, NONE
Tech. Officer: GSFC/A F HASLER
CASE Category: 11 - ASTRONOMY

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| NAG 5 7457 | UNIVERSITY OF CALIFORNIA - BERKELEY | 2270 |
| CARBON IN THE UNIVERSE: PAHS AND CLUSTERS | | |
| 09/18/1998 - 06/30/2001 | FY98: \$106,667 | Total: \$106,667 |
| <i>Prin. Invest.:</i> R SAYKALLY | | |
| <i>Tech. Officer:</i> GSFC/M MEYER | | |
| <i>CASE Category:</i> 99 - MULTI INTERDISCIPL. OTHER | | |

NAG 5 7522 UNIVERSITY OF CALIFORNIA - BERKELEY **2271**
MONITORING OBSERVATIONS OF BLACK HOLE CANDIDATES 1 E
1740.7-2942 ANDGRS 1758-258
 06/02/1998 - 05/31/1999 FY98: \$16,146 Total: \$16,146
Prin. Invest.: D M SMITH
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7586 UNIVERSITY OF CALIFORNIA - BERKELEY 2272
"SEISMIC HAZARD ASSESSMENT OF THE HAYWARD FAULT, C. A. FROM
GPS AND INSAR MEASUREMENT" (SE
 08/04/1998 - 01/31/1999 FY98: \$37,000 Total: \$37,000
Prin. Invest. R BURGMANN
Tech. Office:: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7615: UNIVERSITY OF CALIFORNIA - BERKELEY 2273
ADVANCE THE STATE OF THE ART IN MICROCHANNEL PLATE TECHNO-
LOGY TO SIGNIFICANTLY IMPROVE DETEC
 08/24/1998 - 08/31/1999 FY98: \$135,247 Total: \$135,247
Prin. Invest. D SIEGMUND
Tech. Office : GSFC/R POLIDAN
CASE Category: 99 - MULTIDISCIPL. OTHER

NAG 6 10 UNIVERSITY OF CALIFORNIA - BERKELEY **2274**
SOUNDING ROCKET RESEARCH PROGRAM
 11/01/1980 - 12/31/1999 FY98: \$177,000 Total: \$3,619,476
Prin. Invest. C W CARLSON, F S MOZER, K A ANDERSON
Tech. Office: GSFC/W B JOHNSON, GSFC/R H PLESS
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1201 UNIVERSITY OF CALIFORNIA - BERKELEY **2275**
ANALYSIS OF THE SCIENTIFIC BENEFITS & TECHNICAL PATHS
 09/18/1995 - 09/30/1997 FY98: \$0 Total: \$100,000
Prin. Invest : C R PENNYPACKER
Tech. Office r: MSFC/E E MONTGOMERY
CASE Category: 13 - PHYSICS

NAG 8 1432 UNIVERSITY OF CALIFORNIA - BERKELEY **2276**
R/S SUPERFLUID GYROSCOPES FOR SPACE
 03/02/1998 - 01/31/2003 FY98: \$87,000 Total: \$87,000
Prin. Invest.: R E PACKARD
Tech. Officer: MSFC/J POE
CASE Category: 13 - PHYSICS

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| <p>NAG 8 1458 UNIVERSITY OF CALIFORNIA - BERKELEY 2277 R/S EXPLOITING THE TEMPERATURE DEPENDENCE OF MAGNETIC SUSCEPTIBILITY TO CONTROL CONVECTION 02/15/1998 - 01/31/2002 FY98: \$60,000 Total: \$60,000 <i>Prin. Invest.:</i> J W EVANS, F SZOFRAN <i>Tech. Officer:</i> MSFC/C TALLEY CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p> | <p>NAGW 2478 UNIVERSITY OF CALIFORNIA - BERKELEY 2285 MULTI WAVELENGTH STUDIES OF HOT DA WHITE DWARFS 05/09/1991 - 09/30/1997 FY98: \$0 Total: \$427,000 <i>Prin. Invest.:</i> D S FINLEY <i>Tech. Officer:</i> HQ/G S KUTTER, HQ/G R RIEGLER CASE Category: 11 - ASTRONOMY</p> |
| <p>NAG 9 1051 UNIVERSITY OF CALIFORNIA - BERKELEY 2278 GENESIS DISCOVERY MISSION 08/19/1998 - 03/19/1999 FY98: \$26,000 Total: \$26,000 <i>Prin. Invest.:</i> K NISHIZUMI <i>Tech. Officer:</i> JSC/E K STANSBERRY CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p> | <p>NAGW 2640 UNIVERSITY OF CALIFORNIA - BERKELEY 2286 DEVELOPMENT OF HIGH EFFICIENCY MICROCHANNEL PLATE DETECTORS W/ HIGH SPATIAL RESOLUTION 08/20/1991 - 09/30/1997 FY98: \$0 Total: \$400,000 <i>Prin. Invest.:</i> O H SIEGMUND <i>Tech. Officer:</i> HQ/L KALUZIENSKI CASE Category: 13 - PHYSICS</p> |
| <p>NAGW 604 UNIVERSITY OF CALIFORNIA - BERKELEY 2279 EXPERIMENTAL STUDIES PERTAINING TO THE NATURE OF THE EARTH'S CORE 04/15/1984 - 06/30/1997 FY98: \$0 Total: \$970,168 <i>Prin. Invest.:</i> R JEANLOZ, NONE <i>Tech. Officer:</i> HQ/J UNDERWOOD, HQ/J M BOYCE CASE Category: 32 - GEOLOGICAL SCIENCE</p> | <p>NAGW 2883 UNIVERSITY OF CALIFORNIA - BERKELEY 2287 SOME NEW DIRECTIONS IN COMETARY SPECTROSCOPY 02/13/1992 - 07/31/1998 FY98: \$0 Total: \$260,945 <i>Prin. Invest.:</i> H SPINRAD <i>Tech. Officer:</i> HQ/H C BRINTON CASE Category: 11 - ASTRONOMY</p> |
| <p>NAGW 1290 UNIVERSITY OF CALIFORNIA - BERKELEY 2280 STUDY OF PHOTOEMISSION CHARACTERISTICS OF INORGANIC PHOTO-CATH. 05/01/1988 - 09/30/1997 FY98: \$0 Total: \$1,794,348 <i>Prin. Invest.:</i> O H SIEGMUND <i>Tech. Officer:</i> HQ/G C CLAYTON CASE Category: 11 - ASTRONOMY</p> | <p>NAGW 2991 UNIVERSITY OF CALIFORNIA - BERKELEY 2288 CARBON CLUSTERS AND THEIR RELATIONSHIP TO INTERSTELLAR DUST 03/20/1992 - 09/30/1997 FY98: \$0 Total: \$678,000 <i>Prin. Invest.:</i> R J SAYKALLY, NONE <i>Tech. Officer:</i> HQ/L J CAROFF CASE Category: 11 - ASTRONOMY</p> |
| <p>NAGW 1503 UNIVERSITY OF CALIFORNIA - BERKELEY 2281 THE SYSTEMATIC INTERPRETATION OF COSMIC RAY DATA 12/28/1988 - 11/30/1996 FY98: \$0 Total: \$854,000 <i>Prin. Invest.:</i> H J CRAWFORD <i>Tech. Officer:</i> HQ/W V JONES, HQ/J D BOHLIN CASE Category: 13 - PHYSICS</p> | <p>NAGW 3107 UNIVERSITY OF CALIFORNIA - BERKELEY 2289 PHYSICAL AND CHEMICAL EVOLUTION OF PROTOSTELLAR DISKS 06/15/1992 - 05/31/1997 FY98: \$0 Total: \$228,610 <i>Prin. Invest.:</i> S W STAHLER <i>Tech. Officer:</i> HQ/J A NUTH CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p> |
| <p>NAGW 2000 UNIVERSITY OF CALIFORNIA - BERKELEY 2282 HEAT: A HIGH ENERGY ANTIMATTER TELESCOPE 04/19/1990 - 02/28/1997 FY98: \$0 Total: \$905,000 <i>Prin. Invest.:</i> P B PRICE <i>Tech. Officer:</i> HQ/W V JONES, HQ/J D BOHLIN CASE Category: 13 - PHYSICS</p> | <p>NAGW 3429 UNIVERSITY OF CALIFORNIA - BERKELEY 2290 THE PHYSICS OF FLARING ATMOSPHERES 03/03/1993 - 04/13/1997 FY98: \$0 Total: \$387,724 <i>Prin. Invest.:</i> G H FISHER <i>Tech. Officer:</i> HQ/W J WAGNER, HQ/G WITHROE CASE Category: 13 - PHYSICS</p> |
| <p>NAGW 2029 UNIVERSITY OF CALIFORNIA - BERKELEY 2283 INSTRUMENT DEVELOPMENT AND SCIENTIFIC APPLICATIONS OF THE EXTREME ULTRAVIOLET IMAGING TELESCOPE ARR 04/02/1990 - 09/30/1998 FY98: \$0 Total: \$379,000 <i>Prin. Invest.:</i> O SIEGMUND <i>Tech. Officer:</i> HQ/G CLAYTON CASE Category: 11 - ASTRONOMY</p> | <p>NAGW 3514 UNIVERSITY OF CALIFORNIA - BERKELEY 2291 HISTORICAL STUDIES ON EXTRATERRESTRIAL MATERIALS 04/09/1993 - 09/30/1998 FY98: -\$3 Total: \$570,566 <i>Prin. Invest.:</i> K NISHIZUMI <i>Tech. Officer:</i> HQ/J BOYCE CASE Category: 32 - GEOLOGICAL SCIENCE</p> |
| <p>NAGW 2115 UNIVERSITY OF CALIFORNIA - BERKELEY 2284 NAGW-2115/UNIV OF CA @ BERKELEY/A SCINTILLATION IMAGING GAS-FILLED HARD X-RAY TELESCOPE (SIGHT) 06/06/1990 - 09/30/1997 FY98: \$0 Total: \$1,934,890 <i>Prin. Invest.:</i> B SADOBLET <i>Tech. Officer:</i> HQ/L J KALUZIENSKI, HQ/A N BUNNER CASE Category: 11 - ASTRONOMY</p> | <p>NAGW 3819 UNIVERSITY OF CALIFORNIA - BERKELEY 2292 NAGW-3819/UNIV CALIF BERKELEY; DEVELOPMENT OF LOW REFLECTIVITY MATERIALS & COATINGS FOR EUV & FUV 11/30/1993 - 12/31/1996 FY98: \$0 Total: \$129,000 <i>Prin. Invest.:</i> O H SIEGMUND <i>Tech. Officer:</i> HQ/R V STACHNIK, HQ/E J WEILER CASE Category: 11 - ASTRONOMY</p> |

NAGW 3823 UNIVERSITY OF CALIFORNIA - BERKELEY **2293**
NAGW-3823/UNIV CALIF BERKELEY; ADVANCED DELAY LINE DETECTOR
TECHNOLOGY; 12/1/93 NEW AWARD
 11/30/1993 - 09/30/1997 FY98: \$0 Total: \$255,000
Prin. Invest.: M L LAMPTON
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 4185 UNIVERSITY OF CALIFORNIA - BERKELEY **2294**
X-RAY SPECTROSCOPIC LABORATORY ASTROPHYSICS EXPERIMENTS IN
SUPPORT OF THE NASA X-RAY ASTRONOMY FLIG
 10/31/1994 - 09/30/1997 FY98: \$0 Total: \$590,000
Prin. Invest.: S M KAHN
Tech. Officer: HQ/L J KALUZIENSKI
CASE Category: 11 - ASTRONOMY

NAGW 4260 UNIVERSITY OF CALIFORNIA - BERKELEY **2295**
END TO END PROBLEMS IN EOSDIS
 01/13/1995 - 06/30/1997 FY98: \$0 Total: \$1,451,605
Prin. Invest.: M STONEBRAKER
Tech. Officer: HQ/R S MCGINNIS
CASE Category: 22 - COMPUTER SCIENCE

NAGW 4265 UNIVERSITY OF CALIFORNIA - BERKELEY **2296**
VUV ACOUSTO-OPTIC SPECTROSCOPY
 01/25/1995 - 12/31/1996 FY98: -\$169 Total: \$49,831
Prin. Invest.: J EDELSTEIN
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 4473 UNIVERSITY OF CALIFORNIA - BERKELEY **2297**
TRANSDUCTION OF THE GRAVITY SIGNAL IN MAIZE ROOTS
 05/10/1995 - 10/31/1998 FY98: \$0 Total: \$147,407
Prin. Invest.: L J FELDMAN
Tech. Officer: HQ/T K SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4600 UNIVERSITY OF CALIFORNIA - BERKELEY **2298**
SOLAR WIND EFFECTS ON ATMOSPHERES OF WEAKLY MAGNET
IZED BODIES: MARS, TITAN, AND THE MOON
 07/12/1995 - 09/30/1997 FY98: -\$5,314 Total: \$134,686
Prin. Invest.: J LUHMANN
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAGW 4645 UNIVERSITY OF CALIFORNIA - BERKELEY **2299**
THE FORMATION AND MAINTENANCE OF THE ZONAL WINDS OF JUPITER
AND SATURN
 07/21/1995 - 04/30/1997 FY98: -\$3,341 Total: \$96,659
Prin. Invest.: P MARCUS
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAGW 4773 UNIVERSITY OF CALIFORNIA - BERKELEY **2300**
COSMOLOGICAL HELIUM ISOTOPE EUV FEATURE SPECTROMETER
(CHIEFS) AND MINIMAL OPTIC ECHELLE SPECTROMETER
 09/16/1995 - 09/30/1997 FY98: \$0 Total: \$75,000
Prin. Invest.: M V HURWITZ
Tech. Officer: HQ/M KAPLAN, HQ/D W WEEDMAN
CASE Category: 13 - PHYSICS

NAGW 4796 UNIVERSITY OF CALIFORNIA - BERKELEY **2301**
THE SL9 IMPACTS: INVESTIGATION OF THE IMPACT RADIATION AND
ATMOSPHERIC PERTURBATIONS
 09/25/1995 - 09/30/1997 FY98: -\$506 Total: \$24,494
Prin. Invest.: DE PATER
Tech. Officer: HQ/E BARKER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 484 UNIVERSITY OF CALIFORNIA - BERKELEY **2302**
CARBON IN THE UNIVERSE: PAHS AND CLUSTERS
 10/12/1995 - 07/31/1997 FY98: \$0 Total: \$210,000
Prin. Invest.: R SAYKALLY
Tech. Officer: HQ/M MEYER
CASE Category: 12 - CHEMISTRY

NAGW 4953 UNIVERSITY OF CALIFORNIA - BERKELEY **2303**
SILICON DIFFRACTION GRATINGS FOR ULTRAVIOLET APPLICATIONS
 04/02/1996 - 09/30/1997 FY98: \$0 Total: \$89,800
Prin. Invest.: M V HURWITZ
Tech. Officer: HQ/L TAFF, HQ/D W WEEDMAN
CASE Category: 13 - PHYSICS

NAGW 5019 UNIVERSITY OF CALIFORNIA - BERKELEY **2304**
RELATIONSHIP OF BURSTY BULK FLOW EVENTS AND SUBSTANCES
 03/26/1996 - 09/30/1997 FY98: -\$5,900 Total: \$28,100
Prin. Invest.: V ANGELOPOULOS, NONE
Tech. Officer: HQ/J D BOHLIN, HQ/G L WITHBROE
CASE Category: 13 - PHYSICS

NAGW 5116 UNIVERSITY OF CALIFORNIA - BERKELEY **2305**
THE INTERRELATION OF SOFT AND HARD X-RAY EMISSION DURING
SOLAR FLARES
 08/14/1996 - 06/30/1997 FY98: \$0 Total: \$80,400
Prin. Invest.: G H FISHER
Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE
CASE Category: 11 - ASTRONOMY

NAGW 5127 UNIVERSITY OF CALIFORNIA - BERKELEY **2306**
KINETIC ANALYSIS OF LANGMUIR WAVE PACKETS IN THE EARTH'S
FORESHOCK
 08/07/1996 - 09/30/1997 FY98: \$0 Total: \$60,000
Prin. Invest.: R E ERGUN
Tech. Officer: HQ/J D BOHLIN, HQ/G L WITHBROE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 5133 UNIVERSITY OF CALIFORNIA - BERKELEY **2307**
LARGE SCALE CURRENTS AS A CORONAL HEATING SOURCE
 07/22/1996 - 06/30/1997 FY98: \$0 Total: \$70,800
Prin. Invest.: G H FISHER
Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 5151 UNIVERSITY OF CALIFORNIA - BERKELEY **2308**
FIFTH INTERNATIONAL CONFERENCE ON BIOASTRONOMY
 08/23/1995 - 05/31/1997 FY98: -\$48 Total: \$9,952
Prin. Invest.: D J WERTHIMER
Tech. Officer: HQ/M MYER, HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NAGW 5198 UNIVERSITY OF CALIFORNIA – BERKELEY **2309**
IMPLEMENTATION AND DEPLOYMENT OF A GENERALIZED SEA RACH
TREE FOR MANAGING MULTIPLE DATA TYPES
 10/07/1996 – 12/31/1997 FY98: \$-1 Total: \$165,097
Prin. Invest.: J M HELLERSTEIN
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAS 5 30180 UNIVERSITY OF CALIFORNIA – BERKELEY **2310**
EXTREME ULTRAVIOLET EXPLORER MISSION INVESTIGATION
 07/17/1987 – 02/28/1999 FY98: \$0 Total: \$17,210,982
Prin. Invest.: D HUNTEN
Tech. Officer: GSFC/A SMITH
CASE Category: 11 – ASTRONOMY

NAS 5 30801 UNIVERSITY OF CALIFORNIA – BERKELEY **2311**
ISTP PROJECT'S ELECTRIC FIELDS & WAVES
 07/02/1990 – 10/17/2000 FY98: \$440,000 Total: \$5,784,000
Prin. Invest.: F MOZER
Tech. Officer: GSFC/L CHRISTENSEN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 5 31283 UNIVERSITY OF CALIFORNIA – BERKELEY **2312**
FAST AURORAL SNAPSHOT EXPLORER (FAST)
 01/10/1991 – 10/10/1996 FY98: \$0 Total: \$18,314,545
Prin. Invest.: C W CARLSON
Tech. Officer: GSFC/R ALEMAN
CASE Category: 41 – AERONAUTICAL ENGR

NAS 5 31429 UNIVERSITY OF CALIFORNIA – BERKELEY **2313**
SYSTEM DESIGN PHASE OF REFLECTION GRATING ASSEMBLY
 12/28/1990 – 10/30/1999 FY98: \$1,137,600 Total: \$12,922,466
Prin. Invest.: S KAHN
Tech. Officer: GSFC/R DONNELLY
CASE Category: 41 – AERONAUTICAL ENGR

NAS 5 32698 UNIVERSITY OF CALIFORNIA – BERKELEY **2314**
STUDY "TOOLS FOR PHOTON EVENT DATA"
 09/28/1994 – 08/31/1998 FY98: \$0 Total: \$140,000
Prin. Invest.: C CHRISTIAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAS 5 32795 UNIVERSITY OF CALIFORNIA – BERKELEY **2315**
RESEARCH STUDY – ALEXIS DATA CENTER
 06/16/1995 – 06/15/1998 FY98: \$0 Total: \$158,079
Prin. Invest.: H W SIEGMUAL
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAS 5 96092 UNIVERSITY OF CALIFORNIA – BERKELEY **2316**
EOS-BIOSPHERE ATMOSPHERIC INTERACTIONS STUDY
 10/11/1996 – 07/31/1999 FY98: \$120,000 Total: \$165,000
Prin. Invest.: P MATSON
Tech. Officer: GSFC/P SELLERS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 5 98033 UNIVERSITY OF CALIFORNIA – BERKELEY **2317**
PHASE A CONCEPT STUDY FOR HESSI INVESTIGATION
 11/19/1997 – 08/19/2003 FY98: \$10,855,000 Total: \$10,855,000
Prin. Invest.: R P LIN
Tech. Officer: GSFC/F SNOW
CASE Category: 11 – ASTRONOMY

NAS 5 98171 UNIVERSITY OF CALIFORNIA – BERKELEY **2318**
NGST INTEGRATED SCIENCE INSTRUMENT MODULE (ISIM) CONCEPT
STUDY.
 07/02/1998 – 07/01/1999 FY98: \$25,100 Total: \$25,100
Prin. Invest.: J R GRAHAM
Tech. Officer: GSFC/L R PURVES
CASE Category: 11 – ASTRONOMY

NCC 2 142 UNIVERSITY OF CALIFORNIA – BERKELEY **2319**
DETECTION IDENTIFICATION AND PRECISE LOCATION OF INFRARED
OBJECTS
 07/01/1981 – 05/31/1999 FY98: \$40,000 Total: \$1,439,572
Prin. Invest.: C E HEILES, M COHEN
Tech. Officer: ARC/D GOORVITCH
CASE Category: 11 – ASTRONOMY

NCC 2 548 UNIVERSITY OF CALIFORNIA – BERKELEY **2320**
STAR FORMATION AND THE EVOLUTION OF ELLIPTICAL GALS
 07/01/1988 – 09/30/1998 FY98: \$163,442 Total: \$2,677,743
Prin. Invest.: F H SHU
Tech. Officer: ARC/D J HOLLENBACH, ARC/P CASSER
CASE Category: 11 – ASTRONOMY

NCC 2 757 UNIVERSITY OF CALIFORNIA – BERKELEY **2321**
TELEPRESENCE & ITS RELATIONSHIP TO PERFORMANCE
 06/02/1992 – 01/31/1999 FY98: \$0 Total: \$114,234
Prin. Invest.: L STARK
Tech. Officer: ARC/R B WELCH
CASE Category: 69 – PSYCHOLOGY, OTHER

NCC 2 909 UNIVERSITY OF CALIFORNIA – BERKELEY **2322**
HUMAN PERFORMANCE IN COORDINATED HAPTIC-VISUAL VIR TUAL
ENVIRONMENTS
 06/26/1995 – 09/30/1998 FY98: \$143,472 Total: \$750,972
Prin. Invest.: H KAZERAONI
Tech. Officer: ARC/S R ELLIS
CASE Category: 46 – MECHANICAL ENGR

NCC 2 947 UNIVERSITY OF CALIFORNIA – BERKELEY **2323**
TECHNOLOGY EXPERIMENT DEMONSTRATIONS ON THE RUVE FLIGHT
TEST BED
 04/16/1996 – 04/30/1999 FY98: \$0 Total: \$100,000
Prin. Invest.: R E MALINA
Tech. Officer: ARC/D J KORSMEYER
CASE Category: 21 – MATHEMATICS

NCC 2 949 UNIVERSITY OF CALIFORNIA – BERKELEY **2324**
HUMAN FACTORS IN MAN-VEHICLE RESEARCH
 04/15/1996 – 12/31/1998 FY98: \$60,000 Total: \$210,000
Prin. Invest.: L STARK
Tech. Officer: ARC/S R ELLIS
CASE Category: 49 – ENGINEERING, OTHER

NCC 2 966 UNIVERSITY OF CALIFORNIA - BERKELEY **2325**
VALIDATION OF NEW MILLENNIUM TECHNOLOGIES WITH THE EXTREME
ULTRAVIOLET EXPLORER OBSERVATORY
 08/20/1996 - 06/30/1999 FY98: \$0 Total: \$300,000
Prin. Invest.: R F MALINA *Prin. Invest.:* NONE
Tech. Officer: ARC/D J KORSMEYER
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 972 UNIVERSITY OF CALIFORNIA - BERKELEY **2326**
RESEARCH ON THE APPLICATION OF FUZZY LOGIC & SOFT COMPUTING
TO SYSTEMS ANALYSIS & CONTROL
 10/22/1996 - 08/31/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: L A ZALEH
Tech. Officer: ARC/S LAU, ARC/H CHANG
CASE Category: 21 - MATHEMATICS

NCC 2 998 UNIVERSITY OF CALIFORNIA - BERKELEY **2327**
EYE MOVEMENTS & SCENE INTERPRETATION ALGORITHMS TO ASSIST IN
GEOLOGICAL SCIENTIFIC UNDERSTANDING
 06/23/1997 - 03/31/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: L W STARK
Tech. Officer: ARC/T L ROUSH
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 2 999 UNIVERSITY OF CALIFORNIA - BERKELEY **2328**
SYSTEMS FOR AUTONOMOUS DATA ANALYSIS UNDER CONSTRAINED
RESOURCES
 07/22/1997 - 01/31/1998 FY98: \$0 Total: \$110,000
Prin. Invest.: A R NEWTON
Tech. Officer: ARC/R L ROUSH
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5139 UNIVERSITY OF CALIFORNIA - BERKELEY **2329**
INORGANIC WATER REPELLENT COATINGS FOR THERMAL PROTECTION
INSULATION ON AN AEROSPACE VEHICLE
 06/30/1995 - 09/30/1996 FY98: -\$37 Total: \$39,934
Prin. Invest.: D W FUERSTENAU
Tech. Officer: ARC/D CAGLIOSTRO
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 5161 UNIVERSITY OF CALIFORNIA - BERKELEY **2330**
DESIGN OF INORGANIC WATER REPELLENT COATINGS FOR THERMAL
PROTECTION INSULATION ON AN AEROSPACE VEHICLE
 09/11/1995 - 09/30/1996 FY98: -\$60 Total: \$39,902
Prin. Invest.: D W FUERSTENAU, NONE
Tech. Officer: ARC/D CAGLIOSTRO
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 5185 UNIVERSITY OF CALIFORNIA - BERKELEY **2331**
EVALUATION OF RELATIVE SENSITIVITY OF SAW AND FLEXURAL PLATE
WAVE DEVICES FOR ATMOSPHERIC SENSING
 07/25/1996 - 09/15/1997 FY98: \$0 Total: \$40,000
Prin. Invest.: R M WHITE
Tech. Officer: ARC/J W HINES
CASE Category: 43 - CHEMICAL ENGR

NCC 2 5192 UNIVERSITY OF CALIFORNIA - BERKELEY **2332**
INTERSTELLAR MOLECULES IN THE PROTOSOLAR NEBULA
 12/18/1996 - 10/31/1998 FY98: \$40,000 Total: \$80,000
Prin. Invest.: I DE PATER
Tech. Officer: ARC/D HOLLENBACH
CASE Category: 11 - ASTRONOMY

NCC 2 5195 UNIVERSITY OF CALIFORNIA - BERKELEY **2333**
DUST IN THE CLOUD AND INTERCLOUD PHASES OF THE INTERSTELLAR
MEDIUM
 11/13/1996 - 03/31/1998 FY98: \$0 Total: \$80,000
Prin. Invest.: C F MCKEE
Tech. Officer: ARC/D HOLLENBACH
CASE Category: 11 - ASTRONOMY

NCC 2 5218 UNIVERSITY OF CALIFORNIA - BERKELEY **2334**
CALCULATION OF REACTING GAS FLOWS BY COMPUTATIONAL FLUID
DYNAMICS CODE WITH SPACE APPLICATIONS
 05/22/1997 - 10/31/1998 FY98: \$25,000 Total: \$65,000
Prin. Invest.: M HOLT
Tech. Officer: ARC/M LOOMIS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5227 UNIVERSITY OF CALIFORNIA - BERKELEY **2335**
DATA UNDERSTANDING APPLIED TO OPTIMIZATION
 07/08/1997 - 11/30/1997 FY98: \$0 Total: \$71,980
Prin. Invest.: A NEWTON
Tech. Officer: ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5259 UNIVERSITY OF CALIFORNIA - BERKELEY **2336**
A STUDY OF THE BALLISTIC RANGE FOR AERODYNAMIC TESTING OF
PLANETARY VEHICLES
 03/17/1998 - 06/30/1998 FY98: \$25,000 Total: \$25,000
Prin. Invest.: G CHAMPMAN
Tech. Officer: ARC/P F WERCINSKI
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5287 UNIVERSITY OF CALIFORNIA - BERKELEY **2337**
AUTOMATED SOFTWARE ENGINEERING FOR AUTONOMOUS DATA ANALY-
SIS UNDER CONSTRAINED RESOURCES
 08/10/1998 - 12/31/1998 FY98: \$40,000 Total: \$40,000
Prin. Invest.: R A NEWTON
Tech. Officer: ARC/LOWRY
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5288 UNIVERSITY OF CALIFORNIA - BERKELEY **2338**
THE EVOLUTION OF DUST IN THE MULTIPHASE INTERSTELLAR MEDIUM
 08/13/1998 - 12/31/1998 FY98: \$22,743 Total: \$22,743
Prin. Invest.: C F MCKEE
Tech. Officer: ARC/D J HOLLENBACH
CASE Category: 11 - ASTRONOMY

NCC 3 329 UNIVERSITY OF CALIFORNIA - BERKELEY **2339**
EQUILIBRIUM FLUID INTERFACE BETWEEN UNDER LOW- AND ZERO-
GRAVITY CONDITIONS
 11/30/1993 - 03/05/1997 FY98: -\$11,773 Total: \$272,227
Prin. Invest.: P CONCUS
Tech. Officer: LERC/M WEISLOGEL
CASE Category: 21 - MATHEMATICS

NCC 3 478 UNIVERSITY OF CALIFORNIA - BERKELEY **2340**
FLAMMABILITY DIAGRAMS OF COMBUSTIBLE MATERIALS IN MICROGRA-
VITY
 05/29/1996 - 05/31/2000 FY98: \$28,097 Total: \$128,511
Prin. Invest.: A C FERNANDEZ-PELLO
Tech. Officer: LERC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NCC 5 138 UNIVERSITY OF CALIFORNIA – BERKELEY **2341**
EXTENDED EUVE MISSION
 08/21/1996 – 08/17/1999 FY98: \$2,154,582 Total: \$7,084,582
Prin. Invest.: R MALINA
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 – ASTRONOMY

NCC 5 253 UNIVERSITY OF CALIFORNIA – BERKELEY **2342**
THE SUN-EARTH CONNECTION EDUCATION FORUM.
 10/30/1997 – 11/14/1999 FY98: \$1,315,000 Total: \$1,315,000
Prin. Invest.: I HAWKINS
Tech. Officer: GSFC/P HUNTER
CASE Category: 13 – PHYSICS

NCC 5 352 UNIVERSITY OF CALIFORNIA – BERKELEY **2343**
**SOIL BIOGEOCHEMISTRY OF CARBON, NUTRIENTS, AND TRACE GASES
 IN THE AMAZON REGION OF BRAZIL: FIELD AND**
 07/28/1998 – 07/31/2001 FY98: \$86,676 Total: \$86,676
Prin. Invest.: W SILVER
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30247 UNIVERSITY OF CALIFORNIA – BERKELEY **2344**
GLOBAL CHANGE FELLOWSHIP AWARD
 10/02/1994 – 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: C D'ANTONIO
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30259 UNIVERSITY OF CALIFORNIA – BERKELEY **2345**
GLOBAL CHANGE FELLOWSHIP AWARD
 10/02/1994 – 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: F S CHAPIN III
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30260 UNIVERSITY OF CALIFORNIA – BERKELEY **2346**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/21/1994 – 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: P A MATSON
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30289 UNIVERSITY OF CALIFORNIA – BERKELEY **2347**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/20/1994 – 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: J HARTE
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30318 UNIVERSITY OF CALIFORNIA – BERKELEY **2348**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/31/1995 – 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: W E DIETRICH
Tech. Officer: HQ/M BALTUCK, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30327 UNIVERSITY OF CALIFORNIA – BERKELEY **2349**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/22/1995 – 08/31/1997 FY98: -\$4,635 Total: \$39,365
Prin. Invest.: J KIRCHNER
Tech. Officer: HQ/M BALTUCK, HQ/G ASRAR
CASE Category: 32 – GEOLOGICAL SCIENCE

NGT 51030 UNIVERSITY OF CALIFORNIA – BERKELEY **2350**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/22/1993 – 03/31/1997 FY98: -\$4,041 Total: \$61,959
Prin. Invest.: M HOLT
Tech. Officer: HQ/P HUNTER
CASE Category: 46 – MECHANICAL ENGR

NGT 51269 UNIVERSITY OF CALIFORNIA – BERKELEY **2351**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/17/1994 – 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: R PACKARD
Tech. Officer: HQ/G LESANE
CASE Category: 13 – PHYSICS

NGT 51280 UNIVERSITY OF CALIFORNIA – BERKELEY **2352**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/17/1994 – 06/30/1997 FY98: -\$880 Total: \$43,120
Prin. Invest.: L FELDMAN
Tech. Officer: HQ/G LESANE
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NGT 51287 UNIVERSITY OF CALIFORNIA – BERKELEY **2353**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/28/1994 – 06/30/1997 FY98: -\$1,038 Total: \$64,962
Prin. Invest.: R P LIN
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 – PHYSICS

NGT 51303 UNIVERSITY OF CALIFORNIA – BERKELEY **2354**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/19/1994 – 06/30/1997 FY98: -\$70 Total: \$65,930
Prin. Invest.: E HALLER
Tech. Officer: HQ/D HOLLAND
CASE Category: 45 – ELECTRICAL ENGR

NGT 51375 UNIVERSITY OF CALIFORNIA – BERKELEY **2355**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/05/1995 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: F S MOZER
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 – PHYSICS

NGT 51377 UNIVERSITY OF CALIFORNIA – BERKELEY **2356**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/02/1995 – 06/30/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: G H FISHER
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 – PHYSICS

NGT 51378 UNIVERSITY OF CALIFORNIA – BERKELEY **2357**
GSRP
 06/08/1995 – 09/30/1997 FY98: -\$2,022 Total: \$41,978
Prin. Invest.: R J SAYKALLY
Tech. Officer: HQ/D HOLLAND
CASE Category: 12 – CHEMISTRY

NGT 51643 UNIVERSITY OF CALIFORNIA – BERKELEY **2358**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/08/1996 – 06/30/1997 FY98: -\$95 Total: \$21,905
Prin. Invest.: D BACKER
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 – ASTRONOMY

NGT 51662 UNIVERSITY OF CALIFORNIA - BERKELEY **2359**
GRAD STUDENT RESEARCH PROGRAM
 08/15/1996 - 08/31/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: L BILDSTEIN
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 - PHYSICS

NGT 90039 UNIVERSITY OF CALIFORNIA - BERKELEY **2360**
NGT-90039/UNIV CA @ BERKELEY/MESA COMMUNITY COLLEGE PRO-
GRAM
 08/17/1992 - 06/30/1997 FY98: -\$32,886 Total: \$304,493
Prin. Invest.: D GALLIGANI
Tech. Officer: HQ/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 2 52233 UNIVERSITY OF CALIFORNIA - BERKELEY **2361**
CHARACTERIZATION OF MICROBIAL DIVERSITY IN YELLOWSTONE FUMAR-
ROLES: THE SEARCH FOR PRIMITIVE LIFE IN.
 08/26/1997 - 07/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: N R PACE
Tech. Officer: ARC/D J DES MARAIS
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NGT 5 30005 UNIVERSITY OF CALIFORNIA - BERKELEY **2362**
THE DEVELOPMENT OF POTASSIUM TANTALATE NIOBATE THIN FILM BASED
PHOTOELECTRIC DETECTORS
 10/11/1996 - 08/31/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: E HALLER
Tech. Officer: GSFC/G ASRAR
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 30006 UNIVERSITY OF CALIFORNIA - BERKELEY **2363**
HYDROLOGIC CONTROLS ON NUTRIENT CYCLING AND TROPICAL CALIFOR-
NIA RIVER ECOSYSTEMS
 10/11/1996 - 08/31/1998 FY98: \$22,000 Total: \$66,000
Prin. Invest.: M POWER
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30010 UNIVERSITY OF CALIFORNIA - BERKELEY **2364**
EFFECTS OF NITROGEN ADDITIONS ON GASEOUS NITROGEN DYNAMICS
ACROSS A GRADIENT OF NUTRIENT LIMITATION
 10/23/1996 - 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: P A MATSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30044 UNIVERSITY OF CALIFORNIA - BERKELEY **2365**
THE RELATIONSHIP BETWEEN SOIL AGE, LAND USE AND C VALLEY OF
CALIFORNIA
 12/12/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: D G AMUNDSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30071 UNIVERSITY OF CALIFORNIA - BERKELEY **2366**
PREDICTING WHEN VEGETATION CHANGE MATTERS TO ECOSYSTEMS
 09/09/1997 - 08/31/2000 FY98: \$22,000 Total: \$44,000
Prin. Invest.: M FIRESTONE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30075 UNIVERSITY OF CALIFORNIA - BERKELEY **2367**
THE EFFECT OF WATER ON CARBON CYCLING AND SOIL CARBON CAPITA-
TION ECOSYSTEMS
 09/09/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: D MATSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30089 UNIVERSITY OF CALIFORNIA - BERKELEY **2368**
SOIL DEPTH, TOPOGRAPHY, BIOTA AND CLIMATE CHANGE/ECOSYSTEM FELLOWSHIP
PROGRAM/HILMISATH
 09/10/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: V DIETRICH
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30097 UNIVERSITY OF CALIFORNIA - BERKELEY **2369**
INFLUENCE OF VEGETATION OF FLUVIAL EROSION RATES/SCIENCE FELLOWSHIP PROGRAM/MICHEL
 09/10/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J KIRCHNER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30110 UNIVERSITY OF CALIFORNIA - BERKELEY **2370**
A STUDY OF MEV TERRESTRIAL X-RAY BURSTS
 05/11/1998 - 07/31/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R P LIN/MILLAN
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NGT 5 30141 UNIVERSITY OF CALIFORNIA - BERKELEY **2371**
PHOSPHORUS CYCLING OF LAND USE GRADIENT ON TWO SOIL TEX-
TURES IN A LOWLAND TROPICAL FOREST
 08/27/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: W L SILVER, MCGRODDY
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50012 UNIVERSITY OF CALIFORNIA - BERKELEY **2372**
RAVITROPIC SWITCHING IN PLANTS
 12/19/1996 - 08/31/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: J F FELDMAN
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 50035 UNIVERSITY OF CALIFORNIA - BERKELEY **2373**
THE DYNAMICS OF TWISTED ACTIVE REGION FLUX TUBES
 08/04/1997 - 07/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J FISHER/LINTON
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50044 UNIVERSITY OF CALIFORNIA - BERKELEY **2374**
CONTINUOUS WAVE OPERATION OF FAR-INFRARED GERMANIUM
 07/17/1997 - 07/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: E HALLER
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50052 UNIVERSITY OF CALIFORNIA – BERKELEY **2375**
NUCLEAR BURNING ON RAPIDLY ACCRETING X-RAY PULSARS
 07/17/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: L BILDSTEN
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50061 UNIVERSITY OF CALIFORNIA – BERKELEY **2376**
ION OUTFLOW FROM THE AURORAL IONOSPHERE
 08/04/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: CHARLES
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 50066 UNIVERSITY OF CALIFORNIA – BERKELEY **2377**
DEVELOPMENT OF A SUPERFLUID HELIUM-4 GYROSCOPE
 09/05/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: D PACKARD
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 50072 UNIVERSITY OF CALIFORNIA – BERKELEY **2378**
MUSCLE OXYGENATION AS AN OBJECTIVE METHOD TO EVALUATE STATION GLOVEBOX DESIGN
 09/02/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: S HAMMOND
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50079 UNIVERSITY OF CALIFORNIA – BERKELEY **2379**
GRAVITATIONAL LENSING BY LARGE SCALE STRUCTURE
 09/11/1997 – 08/14/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: J SILK
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 50100 UNIVERSITY OF CALIFORNIA – BERKELEY **2380**
THE BIOMECHANICS OF REDUCED GRAVITY LOCOMOTION
 09/06/1997 – 07/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: FARLEY
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50126 UNIVERSITY OF CALIFORNIA – BERKELEY **2381**
ELUCIDATING THE ROLE OF CARBON AND SILICON-CARBON AERODUST FORMATION STUDENT
 09/09/1997 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: R J SAYKALLY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50133 UNIVERSITY OF CALIFORNIA – BERKELEY **2382**
ASTROPHYSICS OF JETS AND MAGNETIC FIELDS OF SPIRAL
 09/10/1997 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D C BACKER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50157 UNIVERSITY OF CALIFORNIA – BERKELEY **2383**
THE COMPOSITION OF THE ACTINIDES IN GALACTIC COSMIC
 09/11/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: P PRICE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50188 UNIVERSITY OF CALIFORNIA – BERKELEY **2384**
DIAMONDS IN GIANT PLANETS? EXPERIMENTS ON "PLANETARY ICES" AT HIGH PRESSURES AND TEMPERATURES
 05/27/1998 – 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R JEANLOZ
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 – PHYSICS

NGT 5 50189 UNIVERSITY OF CALIFORNIA – BERKELEY **2385**
DETERMINATION OF COSMOLOGICAL PARAMETERS THROUGH COSMIC MICROWAVE BACKGROUND OBSERVATIONS WITH THE
 05/27/1998 – 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: G SMOOT
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 – PHYSICS

NGT 5 50195 UNIVERSITY OF CALIFORNIA – BERKELEY **2386**
BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF THE COSMIC MICROWAVE BACKGROUND ON ANGULAR SCALES
 06/04/1998 – 06/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: P L RICHARDS
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 – PHYSICS

NGT 5 50196 UNIVERSITY OF CALIFORNIA – BERKELEY **2387**
FRAGMENTATION IN COLLAPSING NON-ISOTHERMAL MOLECULAR CLOUDS
 06/04/1998 – 09/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: C F MCKEE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 – PHYSICS

NGT 5 50216 UNIVERSITY OF CALIFORNIA – BERKELEY **2388**
ABOVEGROUND AND BELOWGROUND PLANT SPECIES FUNCTIONAL TRAITS AND THEIR RELATION TO ECOSYSTEM FUNCTION
 09/15/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: F S CHAPIN, 111
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 50223 UNIVERSITY OF CALIFORNIA – BERKELEY **2389**
REGIONAL CHANGES IN EXTREME EVENT FREQUENCIES WITHIN THE UNITED STATES (STUDENT: DIANA DERUBERTIS)
 09/29/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: O E GRANGER, D DERUBERTIS
Tech. Officer: HQ/A NURRIDIN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 1 1744 UNIVERSITY OF CALIFORNIA – DAVIS **2390**
NEW NASA RESEARCH GRANT ACTUATOR SATURATION AND ADVERSE PILOT-VEHICLE COUP
 07/31/1995 – 07/31/1997 FY98: \$0 Total: \$45,821
Prin. Invest.: R A HESS, S A SNELL
Tech. Officer: LARC/B J BACON
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2006 UNIVERSITY OF CALIFORNIA – DAVIS **2391**
PREDICTION OF FLOWS ABOUT FOREBODIES AT HIGH ANGLE OF-ATTACK DYNAMIC CONDITIONS
 02/12/1998 – 02/11/1999 FY98: \$49,083 Total: \$49,083
Prin. Invest.: C P VAN DAM
Tech. Officer: LARC/C M FREMAUX
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 788 UNIVERSITY OF CALIFORNIA - DAVIS **2392**
GRAVITATIONAL FIELDS & NEURAL SIGNALING IN THE HIPPOCAMPUS
 05/29/1992 - 04/30/1997 FY98: -\$2,396 Total: \$143,104
Prin. Invest.: J M HOROWITZ, NONE
Tech. Officer: ARC/C E WADE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 840 UNIVERSITY OF CALIFORNIA - DAVIS **2393**
HOMEOSTATIC & CIRCADIAN RESPONSES OF RHESUS MONKEYS DURING SPACEFLIGHT
 06/11/1993 - 12/31/1998 FY98: \$0 Total: \$715,902
Prin. Invest.: J VERNIKOS
Tech. Officer: ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 944 UNIVERSITY OF CALIFORNIA - DAVIS **2394**
CNS CONTROL OF RHYTHMS & HOMEOSTASIS DURING SPACE FLIGHT
 12/21/1994 - 11/30/1998 FY98: \$268,990 Total: \$460,716
Prin. Invest.: C A FULLER
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 983 UNIVERSITY OF CALIFORNIA - DAVIS **2395**
EFFECTS OF GRAVITY ON INSECT CIRCADIAN RHYTHMICITY
 05/25/1995 - 06/30/1999 FY98: \$206,929 Total: \$651,093
Prin. Invest.: T M HOBAN-HIGGINS, C A FULLER, G X WASSMER
Tech. Officer: ARC/C M WINGET, ARC/C G JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1014 UNIVERSITY OF CALIFORNIA - DAVIS **2396**
15TH INTERNATIONAL CONFERENCE ON NUMERICAL METHODS IN FLUID DYNAMICS
 09/22/1995 - 04/30/1998 FY98: \$0 Total: \$58,500
Prin. Invest.: J J CHATTOT
Tech. Officer: ARC/C A SMITH, ARC/J FLORES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1019 UNIVERSITY OF CALIFORNIA - DAVIS **2397**
MICROGRAVITY EFFECTS ON DEVELOPING VESTIBULAR AFFERENTS (NEUROLAB)
 01/22/1996 - 09/30/1998 FY98: \$114,000 Total: \$417,220
Prin. Invest.: B CHAPMAN
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1216 UNIVERSITY OF CALIFORNIA - DAVIS **2398**
TOWARDS REAL-TIME VECTOR FIELD VISUALIZATION FOR MASSIVE & MULTI-SOURCE DATA USING HIERARCHIES
 05/04/1998 - 06/30/1999 FY98: \$99,430 Total: \$99,430
Prin. Invest.: B HAMANN
Tech. Officer: ARC/A VAZIRI, ARC/M G YAMASAKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1251 UNIVERSITY OF CALIFORNIA - DAVIS **2399**
DENIAL OF SERVICE IN THE INFRASTRUCTURE
 08/19/1998 - 09/30/1999 FY98: \$98,873 Total: \$98,873
Prin. Invest.: M BISHOP
Tech. Officer: ARC/C M FALSETTI, ARC/B H WHITAKER
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1265 UNIVERSITY OF CALIFORNIA - DAVIS **2400**
ADAPTATION OF RHESUS MACAQUES TO A HYPERDYNAMIC ENVIRONMENT
 09/14/1998 - 1/31/1998 FY98: \$52,901 Total: \$52,901
Prin. Invest.: C A FULLER
Tech. Officer: ARC/R E GRINDELAND, ARC/K L SOUZA
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 2 4003 UNIVERSITY OF CALIFORNIA - DAVIS **2401**
DYNAMICS OF VARIABLE MASS SYSTEMS
 12/01/1993 - 01/15/1998 FY98: -\$2 Total: \$230,372
Prin. Invest.: F D EKE
Tech. Officer: ARC/K GUPTA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1558 UNIVERSITY OF CALIFORNIA - DAVIS **2402**
NOVEL FLOW CONFIGURATION FOR THE STUDY OF TURBULENT FLAME PROPAGATION
 02/08/1994 - 01/30/1997 FY98: -\$70 Total: \$224,747
Prin. Invest.: R C ALDREDGE
Tech. Officer: LERC/K J WEILAND
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2032 UNIVERSITY OF CALIFORNIA - DAVIS **2403**
STEADY TRANSONIC FLOW SOLUTIONS OF TURBOMACHINE BLADE ROWS USING THE FULL POTENTIAL FLOW SOLVER SFL
 04/08/1997 - 1/31/1997 FY98: -\$2,196 Total: \$35,386
Prin. Invest.: V R CAPECE, M H HAFEZ
Tech. Officer: LERC/O MEHMED
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2153 UNIVERSITY OF CALIFORNIA - DAVIS **2404**
EXPERIMENTAL STUDIES OF MULTIPHASE MATERIALS USING NUCLEAR MAGNETIC RESONANCE
 05/13/1998 - 03/08/2002 FY98: \$62,000 Total: \$62,000
Prin. Invest.: B L POWELL, S DUGAN, R PHILLIPS
Tech. Officer: LERC/F P CHIARAMONTE
CASE Category: 43 - CHEMICAL ENGR

NAG 5 3001 UNIVERSITY OF CALIFORNIA - DAVIS **2405**
AIRBORNE LASER ALTIMETRIC MONITORING OF THE RAPID EVOLUTION OF TOPOGRAPHY IN LONGVALLEY, CALIF....
 07/14/1995 - 07/31/1999 FY98: \$64,646 Total: \$194,646
Prin. Invest.: J WINSTER
Tech. Officer: C SFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3959 UNIVERSITY OF CALIFORNIA - DAVIS **2406**
FATNESS, FOOD INTAKE AND HYPERGRAVITY: RESPONSES OF
 03/17/1997 - 02/28/1999 FY98: \$0 Total: \$239,000
Prin. Invest.: B HORWITZ
Tech. Officer: C SFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4320 UNIVERSITY OF CALIFORNIA - DAVIS **2407**
CIRCADIAN RHYTHMS IN RHESUS, GRAVITY, LIGHT AND GE
 04/04/1997 - 07/31/1998 FY98: \$0 Total: \$181,876
Prin. Invest.: C A FULLER
Tech. Officer: C SFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4711 UNIVERSITY OF CALIFORNIA – DAVIS **2408**
MEASURING PHOTOCHEMICAL BRANCHING RATIOS FOR COMET USING
THE ADVANCED LIGHT SOURCE AT THE CHEMICAL D
 06/11/1997 – 04/30/1999 FY98: \$85,000 Total: \$170,000
Prin. Invest.: D M JACKSON
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6246 UNIVERSITY OF CALIFORNIA – DAVIS **2409**
MARS BOUNDARY LAYER STABILITY EXPERIMENTS OF DUST
 08/19/1997 – 07/14/1999 FY98: \$14,175 Total: \$61,475
Prin. Invest.: D WHITE
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6440 UNIVERSITY OF CALIFORNIA – DAVIS **2410**
EFFECT OF GRAVITY ON THE REGULATION OF CIRCADIAN RHYTHMS
 11/03/1997 – 03/31/1998 FY98: \$118,910 Total: \$118,910
Prin. Invest.: D MURAKAMI
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 6541 UNIVERSITY OF CALIFORNIA – DAVIS **2411**
CENTER OF EXCELLENCE FOR CLIMATE, ENVIRONMENT AND WATER
RESOURCES ASSESSMENTS OF CALIFORNIA
 10/21/1997 – 09/30/1998 FY98: \$394,351 Total: \$394,351
Prin. Invest.: S L USTIN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7046 UNIVERSITY OF CALIFORNIA – DAVIS **2412**
X-RAY PROPERTIES OF A LARGE SAMPLE OF BL LACERTAE OBJECTS:
DEFINING THE TRANSITION BETWEEN RADIO- AND
 02/18/1998 – 02/28/1999 FY98: \$48,500 Total: \$48,500
Prin. Invest.: S LAURENT-MUEHLEI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7216 UNIVERSITY OF CALIFORNIA – DAVIS **2413**
USE OF HYPER-SPECTRAL IMAGERY TO IDENTIFY AND MAP LEAFY
SPURGE INFESTATIONS AT THEODORE ROOSEVELT
 03/31/1998 – 03/31/1999 FY98: \$58,885 Total: \$58,885
Prin. Invest.: S L USTIN
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7441 UNIVERSITY OF CALIFORNIA – DAVIS **2414**
GEOMETRIC PARAMETERIZATION OF RAINFALL FIELDS
 06/02/1998 – 06/14/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: C E PUENTE
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7649 UNIVERSITY OF CALIFORNIA – DAVIS **2415**
"THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO PRE-
DICT MOSQUITO-BORNE ENCEPHALITIS TRANSMIS
 09/03/1998 – 08/31/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: W REISEN
Tech. Officer: GSFC/B W MESSON
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1143 UNIVERSITY OF CALIFORNIA – DAVIS **2416**
THE GLOBAL ATMOSPHERIC RESPONSE TO LOCALIZED LOW FRE-
QUENCY FORCING
 05/24/1995 – 08/31/1998 FY98: \$0 Total: \$120,000
Prin. Invest.: T R NATHAN
Tech. Officer: MSFC/T L MILLER, MSFC/S H CHOW
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 9 825 UNIVERSITY OF CALIFORNIA – DAVIS **2417**
MICROGRAVITY THRESHOLDS FOR ANTI CANCER DRUG PROD.
 08/09/1995 – 05/31/1998 FY98: \$0 Total: \$239,978
Prin. Invest.: D J DURZAN
Tech. Officer: JSC/N PELLIS
CASE Category: 56 – MEDICAL

NAG 9 1048 UNIVERSITY OF CALIFORNIA – DAVIS **2418**
MESOSCOPIC INSTRUMENTATION MINITURE FTIR FOR ENVIRONMENTAL
MONITORING
 08/13/1998 – 08/04/1999 FY98: \$46,000 Total: \$46,000
Prin. Invest.: S D COLLINS
Tech. Officer: HQ/D L JAN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4390 UNIVERSITY OF CALIFORNIA – DAVIS **2419**
CIRCADIAN RHYTHMS IN RHESUS
 04/03/1995 – 03/31/1998 FY98: \$0 Total: \$395,370
Prin. Invest.: C A FULLER
Tech. Officer: HQ/F SULZMAN
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 4552 UNIVERSITY OF CALIFORNIA – DAVIS **2420**
EFFECT OF GRAVITY ON THE REGULATION OF CIRCADIAN RHYTHMS
 06/28/1995 – 03/31/1999 FY98: \$0 Total: \$245,530
Prin. Invest.: D M MURAKAMI
Tech. Officer: HQ/V SCHNEIDER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 4626 UNIVERSITY OF CALIFORNIA – DAVIS **2421**
PREDICTING VEGETATION TYPE AND BIOMASS IN THE SANTA MONICA
MOUNTAINS
 07/18/1995 – 03/31/1997 FY98: \$0 Total: \$161,181
Prin. Invest.: S L USTIN, F FONDA-BONARDI, S G CONARD
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 5083 UNIVERSITY OF CALIFORNIA – DAVIS **2422**
MEASURING PHOTOCHEMICAL BRANCHING RATIOS
 05/24/1996 – 04/30/1997 FY98: \$0 Total: \$85,000
Prin. Invest.: W M JACKSON
Tech. Officer: HQ/J BERGSTRALH, HQ/J RAHE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 5199 UNIVERSITY OF CALIFORNIA – DAVIS **2423**
DARK MATTER MISSION
 10/03/1996 – 09/30/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: R H BECKER
Tech. Officer: HQ/M S KAPLAN
CASE Category: 11 – ASTRONOMY

NAS 5 31359 UNIVERSITY OF CALIFORNIA - DAVIS **2424**
EOS-BIOSPHERE-ATMOSPHERE INTERACTIONS STUDY
 11/05/1991 - 12/31/1999 FY98: \$65,000 Total: \$468,400
Prin. Invest.: SUSTIN
Tech. Officer: GSFC/P SELLERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 32959 UNIVERSITY OF CALIFORNIA - DAVIS **2425**
CYCLOTRON BEAM TIME
 09/18/1995 - 09/30/1998 FY98: \$37,000 Total: \$87,500
Prin. Invest.: D CASTANEDA
Tech. Officer: GSFC/K A LABEL
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 1 266 UNIVERSITY OF CALIFORNIA - DAVIS **2426**
DEVELOPMENT OF A DESIGN METHODOLOGY FOR RECONFIGURABLE FLIGHT CONTROL SYSTEM
 11/25/1997 - 11/24/1998 FY98: \$52,513 Total: \$52,513
Prin. Invest.: R A HESS
Tech. Officer: LARC/B J BACON
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 873 UNIVERSITY OF CALIFORNIA - DAVIS **2427**
NUMERICAL STUDY OF TIP VORTEX FLOWS
 08/29/1994 - 07/31/1998 FY98: \$59,873 Total: \$335,351
Prin. Invest.: M HAFEZ
Tech. Officer: ARC/D KWAK
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 880 UNIVERSITY OF CALIFORNIA - DAVIS **2428**
DESIGN OF ADVANCED SUBSONIC TRANSPORTS USING NUMERICAL SOLUTION OF THE FULL POTENTIAL EQUATION
 12/19/1994 - 09/30/1998 FY98: \$0 Total: \$260,053
Prin. Invest.: M M HAFEZ, D J KINNEY
Tech. Officer: ARC/P A GELHAUSEN, ARC/K B CARBAJAL
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 886 UNIVERSITY OF CALIFORNIA - DAVIS **2429**
EFFECT OF SPACEFLIGHT ON THE DEVELOPMENT OF THE CIRCADIAN TIMING SYSTEM
 02/06/1995 - 09/30/1998 FY98: \$0 Total: \$537,551
Prin. Invest.: C A FULLER
Tech. Officer: ARC/D A REISS-BUBENHEIM, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 905 UNIVERSITY OF CALIFORNIA - DAVIS **2430**
PERCEPTUAL AND MOTOR RESPONSES TO VISUAL DISPLAYS
 06/21/1995 - 08/31/1999 FY98: \$15,000 Total: \$65,000
Prin. Invest.: R B POST
Tech. Officer: ARC/R B WELCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 2 970 UNIVERSITY OF CALIFORNIA - DAVIS **2431**
THE EFFECTS OF CENTRIFUGATION ON RODENT WATER BALANCE
 09/24/1996 - 01/31/1999 FY98: \$0 Total: \$66,686
Prin. Invest.: C A FULLER, PH.D.
Tech. Officer: ARC/S M HING, ARC/C C JOHNSON
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 1011 UNIVERSITY OF CALIFORNIA - DAVIS **2432**
EFFICIENT PARALLEL ALGORITHMS FOR INVISCID & VISCOUS FLOW SIMULATION
 01/27/1998 - 01/31/1999 FY98: \$70,207 Total: \$70,207
Prin. Invest.: M HAFEZ, J CHATTAT
Tech. Officer: ARC/D KWAK
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5188 UNIVERSITY OF CALIFORNIA - DAVIS **2433**
HIGH LIFT DESIGN METHOD FOR SUBSONIC CIVIL TRANSPORT
 08/16/1996 - 12/31/1997 FY98: \$0 Total: \$40,000
Prin. Invest.: C P VAN DAM
Tech. Officer: ARC/D KINNEY
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5201 UNIVERSITY OF CALIFORNIA - DAVIS **2434**
AN ANJOINT BASED DESIGN METHOD FOR THE COUPLED EULER/INTEGRAL BOUNDARY LAYER EQUATION
 12/23/1996 - 04/30/1998 FY98: \$32,242 Total: \$70,807
Prin. Invest.: J CHATTAT
Tech. Officer: ARC/S C SMITH
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5214 UNIVERSITY OF CALIFORNIA - DAVIS **2435**
MATERIAL CHARACTERIZATION FOR DUCTILE FRACTURE PREDICTION
 05/13/1997 - 05/01/1998 FY98: \$35,842 Total: \$68,493
Prin. Invest.: M R HILL
Tech. Officer: ARC/T L PANONTIN
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 5223 UNIVERSITY OF CALIFORNIA - DAVIS **2436**
MULTI-VIEW ANGLE SPECTRAL UNMIXING FOLDER IMAGE DATA
 06/24/1997 - 05/31/1998 FY98: \$10,137 Total: \$40,137
Prin. Invest.: SUSTIN
Tech. Officer: ARC/V C VANDERBILT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 5229 UNIVERSITY OF CALIFORNIA - DAVIS **2437**
CONVERGENCE ACCELERATION OF HIGH SPEED FLOW SIMULATIONS
 07/17/1997 - 05/31/1999 FY98: \$15,000 Total: \$40,000
Prin. Invest.: M HAFEZ
Tech. Officer: ARC/D KWAK
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5233 UNIVERSITY OF CALIFORNIA - DAVIS **2438**
NUMERICAL SIMULATION OF TIME-DEPENDENT VISCOUS FLOWS ABOUT WIND TURBINES
 08/01/1997 - 07/31/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: C P VAN DAM
Tech. Officer: ARC/E DUQUE
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5236 UNIVERSITY OF CALIFORNIA - DAVIS **2439**
DEVELOPING A METHODOLOGY TO INCLUDE PILOT BEHAVIOR AND PERCEPTUAL CHARACTERISTICS FOR GROUND-BASED.
 08/26/1997 - 08/31/1998 FY98: \$33,626 Total: \$43,626
Prin. Invest.: R HESS
Tech. Officer: ARC/W W CHUNG
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5240 UNIVERSITY OF CALIFORNIA - DAVIS **2440**
APPROXIMATE METHODS FOR CORRECTING POTENTIAL FLOW SOLUTIONS
 09/22/1997 - 12/31/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: M HAFEZ
Tech. Officer: ARC/D KINNEY
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5255 UNIVERSITY OF CALIFORNIA - DAVIS **2441**
HIGH-LIFT DESIGN METHOD FOR SUBSONIC CIVIL TRANSPORT AIRCRAFT
 02/04/1998 - 12/31/1998 FY98: \$78,180 Total: \$78,180
Prin. Invest.: C P VAN DAM
Tech. Officer: ARC/D J KINNEY
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5292 UNIVERSITY OF CALIFORNIA - DAVIS **2442**
IMPLEMENTATION OF PARALLEL COMPUTING TECHNOLOGY
 09/09/1998 - 12/31/1998 FY98: \$30,000 Total: \$30,000
Prin. Invest.: M HAFEZ, J S DACLES-MARIANI
Tech. Officer: ARC/D KWAK
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 477 UNIVERSITY OF CALIFORNIA - DAVIS **2443**
COMBUSTION EXPERIMENTS IN REDUCED GRAVITY WITH TWO -COMPONENT MISCIBLE DROPLETS
 05/21/1996 - 05/20/2000 FY98: \$66,999 Total: \$237,043
Prin. Invest.: B SHAW
Tech. Officer: LERC/D DIETRICH
CASE Category: 13 - PHYSICS

NCC 4 108 UNIVERSITY OF CALIFORNIA - DAVIS **2444**
IN-FLIGHT FLOW VISUALIZATION USING INFRARED THERMOGRAPHY
 01/23/1997 - 12/31/1997 FY98: \$0 Total: \$33,552
Prin. Invest.: C P VAN DAM
Tech. Officer: DFRC/D BANKS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 4 114 UNIVERSITY OF CALIFORNIA - DAVIS **2445**
REMOTE INFRARED THERMOGRAPHY FOR IN-FLIGHT FLOW DIAGNOSTICS
 01/30/1998 - 10/31/1998 FY98: \$37,675 Total: \$37,675
Prin. Invest.: C P VAN DAM, NONE
Tech. Officer: DFRC/D BANKS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 4 118 UNIVERSITY OF CALIFORNIA - DAVIS **2446**
IMPROVED QUANTITATIVE FEEDBACK THEORY DESIGN OF FLIGHT CONTROL SYSTEMS THROUGH SCHEDULING
 03/12/1998 - 03/12/1999 FY98: \$37,833 Total: \$37,833
Prin. Invest.: R HESS
Tech. Officer: DFRC/J BURKEN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 287 UNIVERSITY OF CALIFORNIA - DAVIS **2447**
MICROFABRICATED QUADRUPOLE FOR A MINITURIZED MASS SPECTROMETER
 01/06/1998 - 11/30/1998 FY98: \$30,285 Total: \$30,285
Prin. Invest.: R SMITH
Tech. Officer: GSFC/D HARPOLD
CASE Category: 49 - ENGINEERING, OTHER

NGT 30200 UNIVERSITY OF CALIFORNIA - DAVIS **2448**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/26/1993 - 02/28/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: B C WEARE
Tech. Officer: HQ/G ASRAR, HQ/D M BUTLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 30300 UNIVERSITY OF CALIFORNIA - DAVIS **2449**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/11/1995 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: M B PARLANGE
Tech. Officer: HQ/M Y WEI, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30341 UNIVERSITY OF CALIFORNIA - DAVIS **2450**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/04/1995 - 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: S L USTIN
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 2 52238 UNIVERSITY OF CALIFORNIA - DAVIS **2451**
RELATIONSHIP BETWEEN DYNAMIC BAROREFLEX RESPONSE CHARACTERISTICS & STATIC BAROREFLEX FUNCTION IN....
 01/26/1998 - 09/30/1998 FY98: \$44,000 Total: \$44,000
Prin. Invest.: P MOLE
Tech. Officer: ARC/J E GREENLEAF
CASE Category: 56 - MEDICL

NGT 2 52241 UNIVERSITY OF CALIFORNIA - DAVIS **2452**
16TH INTERNATIONAL CONFERENCE ON NUMERICAL METHODS IN FLUID DYNAMICS
 05/15/1998 - 12/31/1998 FY98: \$25,000 Total: \$25,000
Prin. Invest.: J J CHATTOT
Tech. Officer: ARC/J FLORES
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 5 30052 UNIVERSITY OF CALIFORNIA - DAVIS **2453**
LANDSCAPE STRUCTURE IS AN INT EARTH SYSTEM RESPONSE TO CLIMATE CHANGE
 09/06/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: S L USTIN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30073 UNIVERSITY OF CALIFORNIA - DAVIS **2454**
CLIMATE CONTROL OF VEGETATION AND GROWTH FORM DIST WATER AND ENERGY BALANCE AT LANDSCAPE SCALES
 09/09/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: J GIBELING
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50068 UNIVERSITY OF CALIFORNIA - DAVIS **2455**
GENDER DIFFERENCES IN THE RESPONSES OF RHESUS MONK ENVIRONMENT
 09/02/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: C FULLER
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50204 UNIVERSITY OF CALIFORNIA - DAVIS **2456**
FATNESS, FOOD INTAKE AND HYPERGRAVITY: MECHANISMS OF REGULATION
 07/01/1998 - 06/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: C A FULLER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90024 UNIVERSITY OF CALIFORNIA - DAVIS **2457**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 01/06/1997 - 08/14/1997 FY98: \$0 Total: \$12,000
Prin. Invest.: R CRIDDLE
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 1619 UNIVERSITY OF CALIFORNIA - IRVINE **2458**
SPRAY ATOMIZATION AND DEPOSITION PROCESSING OF AL-LI AND AL-MG STRUCTURAL MATERIALS
 05/24/1994 - 05/23/1997 FY98: -\$1 Total: \$159,071
Prin. Invest.: E J LAVERNA
Tech. Officer: LARC/W D BREWER, LARC/D M ROYSTER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1729 UNIVERSITY OF CALIFORNIA - IRVINE **2459**
EXPERIMENTAL INVESTIGATION OF VARIABLE-DENSITY, VARIABLE-MACH NUMBER COFLOWING JETS
 05/24/1995 - 05/23/1997 FY98: -\$1 Total: \$27,000
Prin. Invest.: D PAPAMOSCHOU
Tech. Officer: LARC/J M SEINER, LARC/M K PONON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1777 UNIVERSITY OF CALIFORNIA - IRVINE **2460**
NEW NASA RESEARCH GRANT
 10/30/1995 - 05/31/1998 FY98: \$0 Total: \$887,500
Prin. Invest.: D R BLAKE, D S ROWLAND
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1906 UNIVERSITY OF CALIFORNIA - IRVINE **2461**
COUPLING ATMOSPHERIC CIRCULATION AND CHEMISTRY: DEVELOPING CTMS FOR CLIMATE SIMULATIONS
 02/28/1997 - 02/28/1999 FY98: \$92,000 Total: \$182,000
Prin. Invest.: M J PRANTHER
Tech. Officer: LARC/G L MADREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2005 UNIVERSITY OF CALIFORNIA - IRVINE **2462**
UPGRADING MEAS CAPABILITIES FOR HYDROCARBONS, HALOCARBONS, AND ALKYL NITRATES
 02/12/1998 - 02/11/1999 FY98: \$300,000 Total: \$300,000
Prin. Invest.: D R BLAKE
Tech. Officer: LARC/J M HOELL, LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2104 UNIVERSITY OF CALIFORNIA - IRVINE **2463**
EXPERIMENTAL INVESTIGATION OF SUPERSONIC COPLANAR JETS WITHIN EJECTORS
 09/02/1998 - 07/31/2001 FY98: \$12,929 Total: \$12,929
Prin. Invest.: D PAPAMOSCHOU
Tech. Officer: LARC/J M SEINER, LARC/M K PONTON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 942 UNIVERSITY OF CALIFORNIA - IRVINE **2464**
NEURAL-THYROID INTERACTION ON SKELETAL ISOMYOSIA EXPRESSION IN OG (ZERO GRAVITY)
 12/22/1994 - 03/30/1998 FY98: \$83,000 Total: \$299,406
Prin. Invest.: K M BALDWIN
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1102 UNIVERSITY OF CALIFORNIA - IRVINE **2465**
WHOLE AIR SAMPLING FROM THE DC-8 AIRCRAFT DURING SONEX
 01/13/1997 - 02/28/1999 FY98: \$95,576 Total: \$391,488
Prin. Invest.: D BLAKE
Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 627 UNIVERSITY OF CALIFORNIA - IRVINE **2466**
IGNITION AND FLAME SPREAD OF LIQUID FUEL POOLS IN REDUCED GRAVITY
 03/04/1985 - 02/27/1998 FY98: \$0 Total: \$956,883
Prin. Invest.: M A SIRIGNANO
Tech. Officer: LERC/H D ROSS, LERC/R SACKSTEDGER
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1605 UNIVERSITY OF CALIFORNIA - IRVINE **2467**
EFFECTS OF GRAVITY ON SHEARED AND NON SHEARED TURBULENT NONPREMIXED FLAMES
 05/23/1994 - 12/31/1998 FY98: \$22,000 Total: \$465,000
Prin. Invest.: S E ELGHOBASHI, K K NOMURA
Tech. Officer: LERC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1831 UNIVERSITY OF CALIFORNIA - IRVINE **2468**
EFFECTS OF GRAVITY ON SHEARED TURBULENCE LADEN WITH BUBBLES OR DROPLETS
 05/02/1996 - 05/01/2000 FY98: \$66,333 Total: \$233,000
Prin. Invest.: S E ELGHOBASHI, J LA SHERAS
Tech. Officer: LERC/S LA SHERAS
CASE Category: 13 - PHYSICS

NAG 3 1981 UNIVERSITY OF CALIFORNIA - IRVINE **2469**
MACH WAVE ELIMINATION IN SUPERSONIC JETS
 10/28/1996 - 02/11/1998 FY98: \$65,699 Total: \$147,827
Prin. Invest.: D PAPAMOSCHOU
Tech. Officer: LERC/M D DAHL
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2024 UNIVERSITY OF CALIFORNIA - IRVINE **2470**
IGNITION AND FLAME SPREAD ABOVE LIQUID FUEL POOLS: GRAVITY EFFECTS
 03/01/1997 - 02/28/1999 FY98: \$51,700 Total: \$146,700
Prin. Invest.: M A SIRIGNANO
Tech. Officer: LERC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 4 145 UNIVERSITY OF CALIFORNIA - IRVINE **2471**
ROBUST NONLINEAR FLIGHT CONTROL WITH GOOD HANDLING QUALITIES
 03/12/1998 - 03/12/1999 FY98: \$57,057 Total: \$57,057
Prin. Invest.: F MEASE
Tech. Officer: JFR/J CARTER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 2306 UNIVERSITY OF CALIFORNIA – IRVINE **2472**
INPUT, ACCUMULATION AND TURNOVER OF CARBON IN BOREAL FOREST SOILS
 07/01/1993 – 12/14/1998 FY98: \$0 Total: \$616,048
Prin. Invest.: S TRUMBORE
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 2724 UNIVERSITY OF CALIFORNIA – IRVINE **2473**
TROPOPAUSE MIXING AND CHEMISTRY: THE IMPACT OF NOX INJECTIONS
 09/21/1994 – 09/30/1998 FY98: \$0 Total: \$140,793
Prin. Invest.: M J PRATHER
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2780 UNIVERSITY OF CALIFORNIA – IRVINE **2474**
STUDIES OF LOWER STRATOSPHERIC PHOTOCHEMISTRY AND TRANSPORT USING COMBINED UARS AND IN SITU DATASETS
 11/07/1994 – 11/14/1997 FY98: \$0 Total: \$289,537
Prin. Invest.: D W TOOHEY
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2917 UNIVERSITY OF CALIFORNIA – IRVINE **2475**
CHEMICAL TRANSPORT MODELS: A GENERAL INTERFACE WITH GLOBAL CIRCULATION MODELS
 03/17/1995 – 03/31/1998 FY98: \$0 Total: \$209,600
Prin. Invest.: M J PRATHER
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3467 UNIVERSITY OF CALIFORNIA – IRVINE **2476**
STABLE ISOTOPES AND RADIOCARBON IN ATMOSPHERIC MET
 11/05/1996 – 01/31/1999 FY98: \$295,093 Total: \$519,278
Prin. Invest.: S C TYLER
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3692 UNIVERSITY OF CALIFORNIA – IRVINE **2477**
A DATA-PARALLEL COMPUTING ENVIRONMENT (SHARK OS)
 01/22/1997 – 01/31/1999 FY98: \$0 Total: \$93,910
Prin. Invest.: I SCHERSON
Tech. Officer: GSFC/J DORLAND
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 3741 UNIVERSITY OF CALIFORNIA – IRVINE **2478**
MECHANICAL AND MOLECULAR STIMULI FOR NORMALIZING M UNLOADING
 03/11/1997 – 08/14/1998 FY98: \$0 Total: \$166,962
Prin. Invest.: G ADAMS
Tech. Officer: GSFC/F M SULZMAN
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 3767 UNIVERSITY OF CALIFORNIA – IRVINE **2479**
LATITUDINAL TROPOSPHERIC CONCENTRATION DISTRIBUTION HALO-CARBONS & HYDROCARBONS
 03/15/1997 – 01/14/1999 FY98: \$207,791 Total: \$417,447
Prin. Invest.: D R BLAKE
Tech. Officer: GSFC/M J KURYLO
CASE Category: 11 – ASTRONOMY

NAG 5 4040 UNIVERSITY OF CALIFORNIA – IRVINE **2480**
MECHANISMS OF MICROGRAVITY EFFECT ON VASCULAR FUNCTION
 04/17/1997 – 07/31/1998 FY98: \$15,924 Total: \$207,945
Prin. Invest.: R PURDY
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 4536 UNIVERSITY OF CALIFORNIA – IRVINE **2481**
HYDRODYNAMIC SIMULATIONS OF THE FORMATION OF GIANT PLANETS
 05/06/1997 – 06/30/1999 FY98: \$0 Total: \$30,000
Prin. Invest.: D P RUDEN
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 5069 UNIVERSITY OF CALIFORNIA – IRVINE **2482**
HIGH ENERGY ANTIMATTER TELESCOPE – HEAT
 07/18/1996 – 12/31/1998 FY98: \$50,000 Total: \$150,000
Prin. Invest.: S W BARWICK
Tech. Officer: WFF/H C NEEDLEMAN, WFF/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5149 UNIVERSITY OF CALIFORNIA – IRVINE **2483**
DEVELOPMENT OF EMPIRICAL MODE DECOMPOSITION METHOD & HILBERT SPECTRAL ANALYSIS FOR ENGR APPLICATIONS
 09/09/1997 – 08/31/1999 FY98: -\$104,340 Total: \$160,924
Prin. Invest.: J N YANG, Z SHEN
Tech. Officer: GSFC/S R LONG, GSFC/N E HUANG
CASE Category: 33 – OCEANOGRAPHY

NAG 5 6396 UNIVERSITY OF CALIFORNIA – IRVINE **2484**
CHEMISTRY & CIRCULATION OCCULTATION SPECTROSCOPY MISSION (CCOSM) BACK-UP MISSION ON THE EARTH SYSTEM
 10/07/1997 – 09/14/1999 FY98: \$163,193 Total: \$163,193
Prin. Invest.: M J PRATHER
Tech. Officer: GSFC/R J FITZGERALD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7137 UNIVERSITY OF CALIFORNIA – IRVINE **2485**
DEVELOPING A CHEMICAL TRANSPORT MODEL FOR ASSESSING GLOBAL CHANGE IN ATMOSPHERIC COMPOSITION
 03/24/1998 – 09/30/1998 FY98: \$86,000 Total: \$86,000
Prin. Invest.: M J PRATHER
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7301 UNIVERSITY OF CALIFORNIA – IRVINE **2486**
ASSESSING ROLE OF FIRE & SOIL DRAINAGE IN DETERMINING NET CARBON FLUXES IN BOREAL ECOSYSTEMS
 05/27/1998 – 04/30/2000 FY98: \$59,585 Total: \$59,585
Prin. Invest.: S TRUMBORE
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 8 1408 UNIVERSITY OF CALIFORNIA – IRVINE **2487**
R/S GROUND BASED PROGRAM FOR THE PHYSICAL ANALYSIS OF MACROMOLECULAR CRYSTAL GROWTH
 11/18/1997 – 09/30/1998 FY98: \$91,391 Total: \$91,391
Prin. Invest.: A J MALKIN
Tech. Officer: MSFC/M L PUSEY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1437 UNIVERSITY OF CALIFORNIA - IRVINE **2488**
RESEARCH/3HE-4HE MIXTURES AND DROPLETS STABILIZED IN CESIATED CONTAINERS
 03/23/1998 - 01/31/2003 FY98: \$40,000 Total: \$40,000
Prin. Invest.: P TABOREK, J RUTLEDGE
Tech. Officer: MSFC/J POE
CASE Category: 12 - CHEMISTRY

NAGW 452 UNIVERSITY OF CALIFORNIA - IRVINE **2489**
LATITUDINAL GRADIENTS IN TROPOSPHERIC CONCENTRATIONS OF SELECTED HOLOCARBONS & HYDROCARBONS
 04/27/1983 - 01/14/1997 FY98: \$0 Total: \$2,415,083
Prin. Invest.: D R BLAKE
Tech. Officer: HQ/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 3163 UNIVERSITY OF CALIFORNIA - IRVINE **2490**
NAGW-3163/UNIV CA @ IRVINE/3-D MODELING OF TROPOSPHERIC AND STRATOSPHERIC CHEMISTRY
 08/14/1992 - 12/31/1997 FY98: \$0 Total: \$453,473
Prin. Invest.: M J PRATHER
Tech. Officer: HQ/J A KAYE, HQ/R E MURPHY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4471 UNIVERSITY OF CALIFORNIA - IRVINE **2491**
MECHANICAL AND MOLECULAR STIMULI FOR NORMALIZING MUSCLE MASS DURING UNLOADING
 05/15/1995 - 02/14/1998 FY98: \$0 Total: \$299,865
Prin. Invest.: G R ADAMS
Tech. Officer: HQ/T K SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 5122 UNIVERSITY OF CALIFORNIA - IRVINE **2492**
HYDRODYNAMIC SIMULATIONS OF THE FORMATION OF GIANT PLANETS
 07/12/1996 - 09/30/1997 FY98: \$0 Total: \$30,000
Prin. Invest.: S P RUDEN
Tech. Officer: HQ/P ROGERS, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAS 119155 UNIVERSITY OF CALIFORNIA - IRVINE **2493**
HALOE SCIENTIFIC INVESTIGATIONS
 05/01/1990 - 11/28/1997 FY98: \$0 Total: \$540,000
Prin. Invest.: R CICERONE
Tech. Officer: LARC/L E MAULDIN, LARC/J M RUSSELL
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 3 27094 UNIVERSITY OF CALIFORNIA - IRVINE **2494**
ENVIRONMENTAL TESTING OF MATERIALS
 02/22/1994 - 03/31/1998 FY98: \$0 Total: \$541,442
Prin. Invest.: G S SAMUELSON, J C EARTHMAN, E J LAVERNIAN
Tech. Officer: LERC/N S JACOBSON, LERC/J L SMIALEK
CASE Category: 49 - ENGINEERING, OTHER

NCC 1 299 UNIVERSITY OF CALIFORNIA - IRVINE **2495**
WHOLE AIR SAMPLING FROM THE DC-8 AND P3-B AIRCRAFT DURING PEM-TROPICS-B
 06/09/1998 - 05/31/2001 FY98: \$625,000 Total: \$625,000
Prin. Invest.: D R BLAKE
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 3 412 UNIVERSITY OF CALIFORNIA - IRVINE **2496**
DETAILED STUDIES OF THE QUICK MIXING IN RICH BURN LOW-NOX ANULAR CONFIGURATION
 04/13/1995 - 02/11/1999 FY98: \$45,113 Total: \$503,940
Prin. Invest.: G S SAMUELSEN
Tech. Officer: LERC/J D HOLDEMAN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 280 UNIVERSITY OF CALIFORNIA - IRVINE **2497**
MEASURING THE EFFECTS OF LOGGING ON THE CO2 AND ENERGY EXCHANGE OF A PRIMARY FOREST IN TAPAJOS N
 06/24/1998 - 02/28/1999 FY98: \$272,031 Total: \$272,031
Prin. Invest.: N L GOULDEN
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 336 UNIVERSITY OF CALIFORNIA - IRVINE **2498**
CARBON DYNAMICS IN VEGETATION AND SOILS ALONG THE EASTERN LBA TRANSECT
 06/16/1998 - 2/31/1998 FY98: \$134,811 Total: \$134,811
Prin. Invest.: S TRUMBORE
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 7 3 UNIVERSITY OF CALIFORNIA - IRVINE **2499**
MICROFABRICATION TRAINING AND EDUCATION
 08/15/1994 - 08/15/1997 FY98: \$504,117 Total: \$495,883
Prin. Invest.: H D NELSON, G P LI
Tech. Officer: JPL/R A DEMOCH
CASE Category: 49 - ENGINEERING, OTHER

NCC 8 148 UNIVERSITY OF CALIFORNIA - IRVINE **2500**
ENHANCED JEWEL PROGRAM
 12/16/1997 - 09/30/1998 FY98: \$399,299 Total: \$399,299
Prin. Invest.: A MCPHEARSON
Tech. Officer: MSFC/R KING
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 30304 UNIVERSITY OF CALIFORNIA - IRVINE **2501**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/31/1995 - 08/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: S C TAYLER
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 90173 UNIVERSITY OF CALIFORNIA - IRVINE **2502**
UNDERGRADUATE STUDENT RESEARCHERS PROGRAM
 08/25/1993 - 06/30/1997 FY98: \$-4 Total: \$35,996
Prin. Invest.: F HERMES
Tech. Officer: HQ/D K RUSSELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 90271 UNIVERSITY OF CALIFORNIA - IRVINE **2503**
UNDERGRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 01/09/1995 - 08/30/1997 FY98: \$0 Total: \$72,000
Prin. Invest.: F HERMES
Tech. Officer: HQ/D K RUSSELL
CASE Category: 45 - ELECTRICAL ENGR

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| NGT 1 52135 UNIVERSITY OF CALIFORNIA – IRVINE 2504 GRADUATE STUDENT RESEARCHERS PROGRAM 06/18/1996 – 06/30/1999 FY98: \$22,001 Total: \$54,001 <i>Prin. Invest.:</i> E J LAVERNIA, L DEL CASTILLO <i>Tech. Officer:</i> LARC/W D BREWER, LARC/D M ROYSTER CASE Category: 47 – METAL & MATERIALS ENGR | NAG 1 2009 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2512 AN ANALYSIS OF THE STABLE GROWTH OF SURFACE FLAWS USING EPFEM, EPBEAM-DP AND THE T*INTEGRAL 02/17/1998 – 12/31/1998 FY98: \$82,500 Total: \$82,500 <i>Prin. Invest.:</i> S N ATLURI <i>Tech. Officer:</i> LARC/D S DAWICKE, LARC/I S RAJU CASE Category: 41 – AERONAUTICAL ENGR |
| NGT 5 30035 UNIVERSITY OF CALIFORNIA – IRVINE 2505 A LABORATORY INVESTIGATION TO DETERMINE THE ROLE OF REACTIVE NITROGEN BALANCE OF THE ATMOSPHERE 10/17/1996 – 08/31/1999 FY98: \$14,100 Total: \$58,100 <i>Prin. Invest.:</i> D TOOHEY <i>Tech. Officer:</i> GSFC/G ASRAR CASE Category: 31 – ATMOSPHERIC SCIENCE | NAG 1 2097 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2513 AIRCRAFT AEROSOLS AND CONTRAILS: MICROPHYSICAL PROCESS AND EVOLUTION 09/10/1998 – 09/09/2001 FY98: \$42,188 Total: \$42,188 <i>Prin. Invest.:</i> R P TURCO <i>Tech. Officer:</i> LARC/W L GROSE CASE Category: 31 – ATMOSPHERIC SCIENCE |
| NGT 5 30127 UNIVERSITY OF CALIFORNIA – IRVINE 2506 TIMESCALES OF TERRESTRIAL ECOSYSTEM RESPONSE TO GLOBAL CHANGE 10/10/1997 – 08/31/1999 FY98: \$44,000 Total: \$44,000 <i>Prin. Invest.:</i> M PRATHER <i>Tech. Officer:</i> GSFC/G ASRAR CASE Category: 99 – MULTI INTERDISCIPL, OTHER | NAG 2 717 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2514 FRENCH RHESUS PROJECT 06/21/1991 – 01/31/1999 FY98: \$0 Total: \$2,002,775 <i>Prin. Invest.:</i> V R EDGERTON, R R ROY, J A HODGSON <i>Tech. Officer:</i> ARC/C M WINGET CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR) |
| NGT 5 50226 UNIVERSITY OF CALIFORNIA – IRVINE 2507 SIGMA D MEASUREMENT OF METHANE AND MOLECULAR HYDROGEN IN THE ATMOSPHERE 09/29/1998 – 08/31/2001 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> R J RICE, RICE <i>Tech. Officer:</i> HQ/A NURRIDIN CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NAG 2 1192 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2515 HIGH SPEED JET NOISE PREDICTION USING NUMERICAL SIMULATIONS 03/25/1998 – 02/28/1999 FY98: \$50,000 Total: \$50,000 <i>Prin. Invest.:</i> J B FREUND <i>Tech. Officer:</i> ARC/D KWAK CASE Category: 41 – AERONAUTICAL ENGR |
| NGT 5 90002 UNIVERSITY OF CALIFORNIA – IRVINE 2508 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR) 01/06/1997 – 08/14/1997 FY98: \$0 Total: \$72,000 <i>Prin. Invest.:</i> F HERMES <i>Tech. Officer:</i> GSFC/R LAWRENCE CASE Category: 49 – ENGINEERING, OTHER | NAG 2 1193 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2516 MECHANICAL SIGNAL TRANSDUCTION IN COUNTERMEASURES OF PHYSIOLOGICAL SCIENCE 03/25/1998 – 09/30/1998 FY98: \$71,313 Total: \$71,313 <i>Prin. Invest.:</i> T J TIDBALL <i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR) |
| NAG 1 1883 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2509 A FRACTURE MODEL FOR RESIN MATERIALS USING MOLECULAR DYNAMIC SIMULATION AND FRACTURE ANALYSIS 01/06/1997 – 01/05/1998 FY98: \$2,553 Total: \$57,447 <i>Prin. Invest.:</i> S N ATLURI <i>Tech. Officer:</i> LARC/I S RAJU, LARC/T S GATES CASE Category: 49 – ENGINEERING, OTHER | NAG 2 1222 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2517 HYPERGRAVITY-INDUCED MODIFICATIONS IN SPATIO-TEMPORAL CODING AMONG UTICULAR PRIMARY AFFERENT NEURONS 05/22/1998 – 09/30/1998 FY98: \$40,000 Total: \$40,000 <i>Prin. Invest.:</i> L F HOFFMAN <i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR) |
| NAG 1 1899 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2510 STRATOSPHERIC AEROSOL MICROPHYSICS AND PHYSICAL CHEMISTRY: MODELING AND OBSERVATIONS 04/01/1997 – 03/31/1999 FY98: \$118,980 Total: \$233,980 <i>Prin. Invest.:</i> R P TURCO <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> LARC/G MADERA, LARC/M M POTEAT CASE Category: 99 – MULTI INTERDISCIPL, OTHER | NAG 2 1228 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2518 EXTENDED PULSE TUBE COOLER SCALING 06/05/1998 – 05/31/1999 FY98: \$7,600 Total: \$7,600 <i>Prin. Invest.:</i> T K FREDERKING <i>Tech. Officer:</i> ARC/J M LEE, ARC/P KITTEL CASE Category: 46 – MECHANICAL ENGR |
| NAG 1 1966 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2511 RADIATIVE TRANSFER AND SATELLITE REMOTE SOUNDING OF CIRRUS CLOUDS USING FIRE-II-IFO DATA 09/08/1997 – 05/07/1999 FY98: \$31,000 Total: \$205,000 <i>Prin. Invest.:</i> K N LIQU, S C OUY <i>Tech. Officer:</i> LARC/D S MCDUGAL CASE Category: 31 – ATMOSPHERIC SCIENCE | NAG 2 1238 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2519 SCALABLE NUMERICAL ALGORITHMS ON NON-HETEROGENEOUS COMPUTING ENVIRONMENTS WITH DYNAMIC ROUTING & LOAD 07/17/1998 – 06/30/1999 FY98: \$60,000 Total: \$60,000 <i>Prin. Invest.:</i> T F CHAN, NONE <i>Tech. Officer:</i> ARC/T J BARTH CASE Category: 22 – COMPUTER SCIENCE |

NAG 2 1249 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2520**
NEXT GENERATION INTERNET BANDWIDTH & TRAFFIC MANAGEMENT
 08/19/1998 - 09/30/1999 FY98: \$202,418 Total: \$202,418
Prin. Invest.: M GERLA, NONE
Tech. Officer: ARC/C M FALSETTI, ARC/B H WHITAKER
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1270 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2521**
NEUROMUSCULAR ADAPTATIONS OF RHESUS MACAQUES TO A HYPER-DYNAMIC ENVIRONMENT
 09/18/1998 - 10/31/1998 FY98: \$32,194 Total: \$32,194
Prin. Invest.: V R EDGERTON, J HODGSON, R ROY
Tech. Officer: ARC/R E GRINDELAND, ARC/K L SOUZA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1419 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2522**
MICROGRAVITY FOAM STRUCTURE & RHEOLOGY
 12/15/1992 - 12/31/1996 FY98: -\$22 Total: \$274,978
Prin. Invest.: D DURIAN
Tech. Officer: LERC/J GLASGOW, LERC/R ANSARI
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1584 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2523**
SCIENCE PLANNING FOR THE TROPIX MISSION
 03/25/1994 - 07/17/1998 FY98: \$25,610 Total: \$75,000
Prin. Invest.: C T RUSSELL
Tech. Officer: LERC/J M HICKMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1819 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2524**
STUDIES IN THERMOCAPILARY CONVECTION OF THE MARANGONI-BERNARD TYPE
 05/06/1996 - 05/05/2000 FY98: \$80,000 Total: \$214,000
Prin. Invest.: R E KELLY
Tech. Officer: LERC/B S SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1832 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2525**
INVESTIGATION OF MECHANISMS ASSOCIATED WITH NUCLEAR BOILING UNDER MICROGRAVITY CONDITIONS
 05/06/1996 - 05/05/2000 FY98: \$245,451 Total: \$481,933
Prin. Invest.: V K DHIR
Tech. Officer: LERC/D F SHAO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1849 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2526**
THE MELTING OF AQUEOUS FOAMS
 05/06/1996 - 05/31/2000 FY98: \$175,000 Total: \$403,000
Prin. Invest.: D J DURIAN
Tech. Officer: LERC/B SINGH
CASE Category: 13 - PHYSICS

NAG 3 1862 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2527**
FINITE SIZE EFFECTS NEAR THE LIQUID-GAS CRITICAL POINT OF 3HE
 05/08/1996 - 05/07/2000 FY98: \$35,600 Total: \$173,680
Prin. Invest.: J RUDNICK
Tech. Officer: LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1889 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2528**
CONTAINERLESS RIPPLE TURBULENCE
 05/31/1996 - 05/30/2000 FY98: \$100,000 Total: \$175,000
Prin. Invest.: S PUTTERMAN
Tech. Officer: LERC/R ROGERS
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2108 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2529**
DIFFUSING LIGHT PHOTOGRAPHY OF CONTAINERLESS RIPPLE TURBULENCE
 03/01/1998 - 01/07/2002 FY98: \$100,000 Total: \$100,000
Prin. Invest.: S J PUTTERMAN
Tech. Officer: LERC/W M DUVAL
CASE Category: 13 - PHYSICS

NAG 4 119 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2530**
SYSTEM INTEGRATION MULTIDISCIPLINARY ANALYSIS AND MODELING
 02/24/1997 - 01/28/1999 FY98: \$25,000 Total: \$100,000
Prin. Invest.: S H LEE, D FELSZEGHY
Tech. Officer: LERC/L DUKE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 713 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2531**
ESTIMATION THEORY SATELLITE DATA ASSIMILATION AND ATMOSPHERIC PREDICTABILITY
 09/15/1985 - 04/30/1999 FY98: \$0 Total: \$1,465,999
Prin. Invest.: M GHIL
Tech. Officer: GSFC/J PFAENDTNER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1100 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2532**
THEORETICAL TECHNOLOGY RESEARCH FOR THE ISTP
 11/01/1988 - 01/31/1998 FY98: \$0 Total: \$3,518,105
Prin. Invest.: A A ABDALLA
Tech. Officer: GSFC/S A CURTIS, GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 1166 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2533**
CALIBRATION OF MAGNETICALLY INDUCED SOLAR VELOCITY
 07/15/1989 - 03/31/1998 FY98: \$0 Total: \$629,955
Prin. Invest.: R K ULRICH
Tech. Officer: GSFC/A I POLAND
CASE Category: 11 - ASTRONOMY

NAG 5 1306 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2534**
COBE DATA ANALYSIS & ATTITUDE VALIDATION
 11/15/1989 - 12/31/1998 FY98: \$0 Total: \$660,792
Prin. Invest.: E L WRIGHT
Tech. Officer: GSFC/J MATHER
CASE Category: 11 - ASTRONOMY

NAG 5 2171 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2535**
STUDIES OF THE INTERSTELLAR MEDIUM WITH THE GHRS
 01/11/1993 - 01/14/1998 FY98: \$0 Total: \$210,400
Prin. Invest.: M A JURA
Tech. Officer: GSFC/A SMITH
CASE Category: 11 - ASTRONOMY

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| NAG 5 2225 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2536 DATA ANALYSIS AND KNOWLEDGE DISCOVERY IN GEOPHYSICAL DATA-BASES 03/01/1993 – 03/31/1997 FY98: \$0 Total: \$801,000 <i>Prin. Invest.:</i> R MUNTZ <i>Tech. Officer:</i> GSFC/J R FISCHER <i>CASE Category:</i> 22 – COMPUTER SCIENCE | NAG 5 3244 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2544 ANALYSIS OF TOTAL SOLAR IRRADIANCE VARIATIONS 05/28/1996 – 05/31/1998 FY98: \$0 Total: \$94,975 <i>Prin. Invest.:</i> J M PAP <i>Tech. Officer:</i> GSFC/A I POLAND <i>CASE Category:</i> 11 – ASTRONOMY |
| NAG 5 2653 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2537 STELLAR AND CIRCUMSTELLAR STRUCTURES IN ALGOL BINARIES 07/27/1994 – 07/31/1997 FY98: \$0 Total: \$55,000 <i>Prin. Invest.:</i> M J PLAVEC <i>Tech. Officer:</i> GSFC/D WEST <i>CASE Category:</i> 11 – ASTRONOMY | NAG 5 3252 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2545 MICROWAVE ANISOTROPY PROBE FOR MIDEX 06/06/1996 – 06/14/1998 FY98: \$0 Total: \$84,732 <i>Prin. Invest.:</i> E S WRIGHT <i>Tech. Officer:</i> GSFC/C L BENNETT <i>CASE Category:</i> 11 – ASTRONOMY |
| NAG 5 2723 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2538 SUBSONIC AIRCRAFT EMISSIONS IMPACTS ON UPPER TROPOSPHERIC MICROPHYSICS AND CHEMISTRY 09/25/1994 – 09/30/1997 FY98: \$0 Total: \$249,977 <i>Prin. Invest.:</i> R P TURCO <i>Tech. Officer:</i> GSFC/R W STEWART <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE | NAG 5 3309 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2546 AN ISO DATA ANALYSIS BLOCK GRANT 07/31/1996 – 08/14/1999 FY98: \$378,500 Total: \$718,800 <i>Prin. Invest.:</i> E E BECKLIN <i>Tech. Officer:</i> GSFC/D WEST <i>CASE Category:</i> 11 – ASTRONOMY |
| NAG 5 2749 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2539 SPATIALLY RESOLVED AND INTEGRATED INDICES OF SOLAR AND STELLAR ACTIVITY 10/06/1994 – 01/14/1998 FY98: \$0 Total: \$117,634 <i>Prin. Invest.:</i> R K ULRICH <i>Tech. Officer:</i> GSFC/C H JACKMAN <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE | NAG 5 3722 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2547 THE MAGNETOTAIL FLUX ROPES: THEIR STRUCTURE, EVOLUTION, MAGNETOSPHERIC DYNAMICS 02/12/1997 – 01/31/1998 FY98: \$0 Total: \$25,000 <i>Prin. Invest.:</i> K K KHURANA <i>Tech. Officer:</i> GSFC/J BOHLIN <i>CASE Category:</i> 13 – PHYSICS |
| NAG 5 2953 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2540 THE HIDDEN OCEAN ON THE TOP OF THE COVE AND THE GEOMAGNETIC SECULAR VARIATION 06/07/1995 – 09/14/1998 FY98: \$0 Total: \$210,000 <i>Prin. Invest.:</i> S I BREGINSKY <i>Tech. Officer:</i> GSFC/P TAYLOR <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER | NAG 5 3761 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2548 RELATIONSHIP TO BURSTY BULK FLOW EVENTS AND SUBSTORMS 01/27/1997 – 09/30/1997 FY98: \$0 Total: \$31,000 <i>Prin. Invest.:</i> F V CORONITI <i>Tech. Officer:</i> GSFC/J BOHLIN <i>CASE Category:</i> 13 – PHYSICS |
| NAG 5 3089 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2541 THREE-DIMENSIONAL MHD SIMULATIONS OF ACCRETION FLOWS IN ACTIVE GALACTIC NUCLEI 10/11/1995 – 10/14/1999 FY98: \$100,000 Total: \$300,000 <i>Prin. Invest.:</i> F V CORONITI <i>Tech. Officer:</i> GSFC/D WEST <i>CASE Category:</i> 11 – ASTRONOMY | NAG 5 3764 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2549 SOURCE DETERMINATION FOR SUBSTORM-RELATED ION INJECTIONS 02/13/1997 – 04/14/1999 FY98: \$43,542 Total: \$98,542 <i>Prin. Invest.:</i> R J STRANGWAY <i>Tech. Officer:</i> GSFC/J BOHLIN <i>CASE Category:</i> 13 – PHYSICS |
| NAG 5 3171 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2542 POLAR MAGNETIC FIELD EXPERIMENT 02/21/1996 – 09/30/1998 FY98: \$438,000 Total: \$1,653,847 <i>Prin. Invest.:</i> C T RUSSELL <i>Tech. Officer:</i> GSFC/R A HOFFMAN <i>CASE Category:</i> 13 – PHYSICS | NAG 5 3863 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2550 THERMAL AND DYNAMICAL PROCESSES IN THE EVOLUTION OF SATELLITES 02/14/1997 – 09/30/1999 FY98: \$80,000 Total: \$160,000 <i>Prin. Invest.:</i> G SCHUBERT <i>Tech. Officer:</i> GSFC/P G ROGERS <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE |
| NAG 5 3235 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2543 THE COUPLED MAGNETOSPHERE-IONOSPHERE: AURORAL ARCS AND SUBSTORM BREAKUP 05/16/1996 – 05/31/1999 FY98: \$286,000 Total: \$715,000 <i>Prin. Invest.:</i> F V CORONITI <i>Tech. Officer:</i> GSFC/J J GREBOWSKY, HQ/J D BOHLIN <i>CASE Category:</i> 13 – PHYSICS | NAG 5 3864 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2551 MARS POLAR STUDIES 02/14/1997 – 09/30/1997 FY98: \$0 Total: \$33,000 <i>Prin. Invest.:</i> D A PAIGE <i>Tech. Officer:</i> GSFC/P G ROGERS <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE |

NAG 5 3880 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2552**
DESIGN STUDY FOR A GLOBAL MAGNETOSPHERIC DYNAMICS
 02/26/1997 - 03/31/1999 FY98: \$0 Total: \$137,824
Prin. Invest.: D T RUSSELL
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 3956 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2553**
VENUS TECTONICS AND EVOLUTION
 03/12/1997 - 02/14/1999 FY98: \$39,930 Total: \$67,830
Prin. Invest.: W M KAULA
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3964 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2554**
REGULATION OF VASCULAR NEUROSECRETION BY MECHANICA IN NERVE
TERMINAL MEMBRANES
 02/13/1997 - 04/30/1999 FY98: \$35,976 Total: \$118,997
Prin. Invest.: A D GRINNELL
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3982 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2555**
OBSERVATION & MODELING OF THE TRANSIENT GENERAL CIRCULAR NORTH
PACIFIC OCEAN
 03/03/1997 - 05/31/1999 FY98: \$116,000 Total: \$226,341
Prin. Invest.: J C MCWILLIAMS
Tech. Officer: GSFC/B C DOUGLAS
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4030 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2556**
ISSS-5 MEETING SUPPORT
 03/06/1997 - 02/28/1998 FY98: \$0 Total: \$10,000
Prin. Invest.: D ASHOUR-ABDALLA
Tech. Officer: GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4066 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2557**
DISSIPATIVE PROCESSES IN THE MAGNETOPAUSE BOUNDARY SHEET
EVENTS USING THE INTERBALL SPACECRAFT
 03/10/1997 - 03/14/1999 FY98: \$0 Total: \$53,300
Prin. Invest.: D T RUSSELL
Tech. Officer: GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4067 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2558**
THEORETICAL INVESTIGATION OF THE HIGH-ALTITUDE CUSTIONS FROM
INTERBALL ANDISTP SPACECRAFT
 03/25/1997 - 10/31/1999 FY98: \$0 Total: \$50,000
Prin. Invest.: D ASHOUR-ABDALLA
Tech. Officer: GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4117 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2559**
DYNAMICAL STUDIES OF PLANETARY AND SATELLITE ATMOS
 02/28/1997 - 01/31/1999 FY98: \$80,000 Total: \$135,001
Prin. Invest.: P SCHUBERT
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4215 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2560**
PRISTINE IGNEOUS ROCKS AND THE EARLY DIFFERENTIATED MATERIALS
 03/19/1997 - 11/14/1998 FY98: \$135,000 Total: \$300,000
Prin. Invest.: D H WARREN
Tech. Officer: GSFC/J BOYCE
CASE Category: 12 - CHEMISTRY

NAG 5 4270 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2561**
ELECTRON PRECIPITATION FROM THE INNER MAGNETOSPHERE THE
MIDDLE ATMOSPHERE
 04/04/1997 - 04/30/1999 FY98: \$36,135 Total: \$105,829
Prin. Invest.: D M THORNE
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4299 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2562**
SOLAR WIND RECORD IN THE LUNAR REGOLITH
 04/15/1997 - 02/28/1999 FY98: \$56,667 Total: \$141,667
Prin. Invest.: C F KERRIDGE
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4305 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2563**
INVESTIGATION OF NEBULAR PROCESSES THROUGH OXYGEN PRIMITIVE
METEORITE MATERIALS
 04/01/1997 - 09/30/1998 FY98: \$0 Total: \$30,108
Prin. Invest.: D A LESHIN
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4331 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2564**
COSMOCHEMICAL STUDIES: CHONDRITE COMPONENTS AND D METEOR-
ITES
 04/16/1997 - 01/31/2001 FY98: \$120,000 Total: \$260,000
Prin. Invest.: J T WASSON
Tech. Officer: GSFC/D F NAVA
CASE Category: 12 - CHEMISTRY

NAG 5 4339 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2565**
THE ROLE OF THIN CURRENT SHEETS IN PLASMA SHEET CO DISRUPTION
 04/12/1997 - 02/28/2001 FY98: \$54,000 Total: \$134,200
Prin. Invest.: J L PRITCHETT
Tech. Officer: GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4367 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2566**
MARS SURVEYOR PROGRAM '98 LANDER LANDING SITE STUD
 04/29/1997 - 03/31/1999 FY98: \$0 Total: \$40,000
Prin. Invest.: D A PAIGE
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4421 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2567**
NUMERICAL MODELING OF THE GLOBAL ATMOSPHERE
 05/01/1997 - 04/30/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: A ARAKAWA
Tech. Officer: GSFC/M SUAREZ
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4449 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2568**
THE PROPERTIES AND BEHAVIOR OF MARTIAN CARBON DIOX
 06/17/1997 – 02/28/1999 FY98: \$40,000 Total: \$80,000
Prin. Invest.: D A PAIGE
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4475 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2569**
IS THE HIGH MULTIPLICITY OF T TAURI STARS IN TAURUS PROBLEM FOR PLANETARY FORMATION
 06/02/1997 – 06/30/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: D GHEZ
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4527 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2570**
SIMULATION OF EFFECTS OF PLANETARY WAVE OSCILLATION AND IONOSPHERE USING A COUPLED THERMOSPHERE IONOSPHERE
 05/06/1997 – 04/30/1999 FY98: \$32,599 Total: \$95,054
Prin. Invest.: D PARISH, NONE
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 – PHYSICS

NAG 5 4568 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2571**
PARTICLE GROWTH AND AGGLOMERATION IN THE SOLAR NEB
 05/30/1997 – 12/31/1998 FY98: \$0 Total: \$65,000
Prin. Invest.: D T WASSON
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4612 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2572**
CO-INVESTIGATOR PARTICIPATION IN THE MARS 96 MISSION MARTIAN MAGNETIC FIELD
 05/21/1997 – 12/31/1998 FY98: \$0 Total: \$15,000
Prin. Invest.: D T RUSSELL
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4628 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2573**
THREE-DIMENSIONAL NUMERICAL SIMULATIONS OF LITHOSPHERIC DYNAMICS
 05/21/1997 – 05/31/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: G SCHUBERT
Tech. Officer: GSFC/B BILLS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4661 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2574**
SOME STUDIES OF FLUX ROPES IN THE EARTH'S MAGNETOTAIL
 06/05/1997 – 05/31/1999 FY98: \$77,695 Total: \$152,848
Prin. Invest.: D K KHURANA
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 – PHYSICS

NAG 5 4666 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2575**
ISOTOPIC CHARACTERIZATION OF PREBIOTIC SYNTHESIS OF ORGANIC
 08/04/1997 – 08/31/1998 FY98: \$0 Total: \$85,368
Prin. Invest.: D KERRIDGE
Tech. Officer: GSFC/M MEYER
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4680 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2576**
AN INTEGRATED STUDY OF RING CURRENT DYNAMICS DURING
 06/17/1997 – 05/31/1999 FY98: \$82,000 Total: \$176,000
Prin. Invest.: D M THORNE
Tech. Officer: GSFC/D EVANS
CASE Category: 13 – PHYSICS

NAG 5 4683 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2577**
STUDIES OF THE INTRINSIC COMPLEXITIES OF MAGNETOSPHERIC THEORY AND OBSERVATIONS
 06/09/1997 – 04/30/1998 FY98: \$0 Total: \$84,800
Prin. Invest.: D ASHOUR-ABDALLA
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 – PHYSICS

NAG 5 4684 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2578**
DEVELOPMENT OF A MODEL FOR THE NIGHT SIDE MAGNETOSPHERIC LATIONS
 06/09/1997 – 12/31/1998 FY98: \$0 Total: \$68,335
Prin. Invest.: D RAEDER
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 – PHYSICS

NAG 5 4685 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2579**
GLOBAL MHD SIMULATIONS OF MESOSCALE STRUCTURES AT MARS
 06/05/1997 – 12/31/1998 FY98: \$0 Total: \$64,500
Prin. Invest.: P BERCHEM
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 – PHYSICS

NAG 5 4688 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2580**
TOWARD OTHER SOLAR SYSTEMS: GAS, DUST, BROWN DWARF
 06/17/1997 – 04/30/1999 FY98: \$24,500 Total: \$73,500
Prin. Invest.: D M ZUCKERMAN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4704 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2581**
ISOTOPIC INVESTIGATIONS OF NEBULAR AND PARENT-BODY SENSITIVITY ION MICROPROBE
 08/13/1997 – 05/31/1999 FY98: \$33,333 Total: \$113,333
Prin. Invest.: D D MCKEEGAN
Tech. Officer: HQ/J F BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4766 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2582**
CHONDRITIC METEORITES: NEBULAR AND PARENT-BODY FORMATION
 06/05/1997 – 05/31/1999 FY98: \$29,167 Total: \$79,167
Prin. Invest.: D E RUBIN
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4837 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2583**
2ND YEAR RENEWAL "INFLAMMATORY AND MECHANICAL COMPOUND INJURY"
 06/26/1997 – 03/31/1999 FY98: \$194,491 Total: \$379,852
Prin. Invest.: J TIDBALL
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 6008 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2584**
ACTIVE REGION IDENTIFICATION USING MDI IMAGES
 08/19/1997 - 06/30/1998 FY98: \$0 Total: \$24,030
Prin. Invest.: D M PAP
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 - PHYSICS

NAG 5 6036 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2585**
RADIATIVE AND CLIMATE EFFECT OF CONTRAIL CIRRUS
 10/23/1997 - 02/28/1998 FY98: \$118,426 Total: \$118,426
Prin. Invest.: L KUO-NAN
Tech. Officer: GSFC/R STEWART
CASE Category: 11 - ASTRONOMY

NAG 5 6082 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2586**
ISOTOPIC AND EXPERIMENTAL CONSTRAINTS ON THE GENES RTIAN METEORITE ALH84001
 08/26/1997 - 07/31/1999 FY98: \$0 Total: \$69,000
Prin. Invest.: L A LESHIN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6160 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2587**
LIGHT SCATTERING OF REMOTE SENSING AT CIRRUS CLOUDS USING MODIS CHANNELS
 10/29/1997 - 03/31/1998 FY98: \$60,000 Total: \$60,000
Prin. Invest.: K N LIU
Tech. Officer: GSFC/M KING
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6243 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2588**
THE NEAR-EARTH PLASMA SHEET AND ITS RESPONSE TO TH ON, AND LARGE-SCALE DISTURBANCES
 08/19/1997 - 06/30/1999 FY98: \$70,000 Total: \$140,000
Prin. Invest.: P R LYONS
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6265 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2589**
ASSYM. AURORAL PROCESSES
 08/21/1997 - 06/30/2000 FY98: \$27,304 Total: \$107,504
Prin. Invest.: D M THORNE
Tech. Officer: GSFC/J BERGSTALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6272 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2590**
CONDENSATION OF THE MARTIAN ATMOSPHERE DURING POLA DYNAMICS & MICROPHYSICS
 08/27/1997 - 08/31/1999 FY98: \$30,600 Total: \$60,400
Prin. Invest.: D PAIGE
Tech. Officer: GSFC/J BERGSTALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6307 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2591**
WAVELENGTH-TUNABLE NOVEL SEMICONDUCTOR DIR DETECTORS FOR ISR ASTRONOMY RESEARCH
 10/10/1997 - 06/14/1998 FY98: \$28,000 Total: \$28,000
Prin. Invest.: D L WANG
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 6332 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2592**
OBSERVATIONAL AND THEORETICAL STUDIES OF SOLAR STR
 09/30/1997 - 01/30/2000 FY98: \$105,111 Total: \$310,130
Prin. Invest.: D K ULRICH
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6377 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2593**
SUBSTORM BREAK-UP AS A COUPLED MAGNETOSPHERE-IONOSPHERE INSTABILITY
 10/08/1997 - 03/31/1999 FY98: \$72,667 Total: \$72,667
Prin. Invest.: D PELLAT
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6386 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2594**
GENERAL CIRCULATION OF THE SOUTHERN HEMISPHERE
 09/26/1997 - 05/31/1999 FY98: \$30,000 Total: \$125,000
Prin. Invest.: C R MECHOSO
Tech. Officer: GSFC/J A KAYE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6397 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2595**
IMGRASS RADIATION AND REMOTE SENSING PROGRAM IN SUPPORT OF BSRN
 10/29/1997 - 11/14/1998 FY98: \$23,358 Total: \$23,358
Prin. Invest.: K N LIU
Tech. Officer: GSFC/M DAH CHOU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6407 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2596**
AN HRI IMAGE OF A BRIGHT SEYFERT 2 GALAXY & A POSSIBLE X-RAY EMITTING PFE-MAIN-SEQUENCE STAR
 10/10/1997 - 01/14/1998 FY98: \$10,200 Total: \$10,200
Prin. Invest.: M MALKAN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6657 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2597**
A CAMPUS-WIDE INITIATIVE FOR INTERDISCIPLINARY STUDY OF THE ENVIRONMENT WITH REMOTE SENSING
 12/16/1997 - 11/14/1998 FY98: \$193,000 Total: \$193,000
Prin. Invest.: I SMITH
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6680 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2598**
SPECTRAL DISTRIBUTION OF SOLAR IRRADIANCE VARIABILITY
 12/08/1997 - 11/30/1998 FY98: \$40,045 Total: \$40,045
Prin. Invest.: J PAP
Tech. Officer: GSFC/C JACKMAN
CASE Category: 13 - PHYSICS

NAG 5 6689 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2599**
THEORETICAL TECHNOLOGY RESEARCH FOR THE INTERNATIONAL SOLAR TERRESTRIAL PHYSICS (ISTP) PROGRAM.
 12/01/1997 - 09/30/1999 FY98: \$907,500 Total: \$907,500
Prin. Invest.: M ABDALLA
Tech. Officer: GSFC/S CURTIS
CASE Category: 99 - MULTIDISCIPL, OTHER

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| <p>NAG 5 6703 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2600 PALEOBIOLOGIC STUDIES OF THE ANTIQUITY AND PRECAMBRIAN EVOLUTION OF LIFE 12/04/1997 – 09/30/1998 FY98: \$74,095 Total: \$74,095 <i>Prin. Invest.:</i> J SCHOPF <i>Tech. Officer:</i> GSFC/M MEYER <i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR)</p> | <p>NAG 5 7386 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2608 AUTOMATED RECOGNITION & CHARACTERIZATION OF SOLAR ACTIVE REGIONS BASED ON SOHO/MDI IMAGES 05/22/1998 – 04/30/1999 FY98: \$21,052 Total: \$21,052 <i>Prin. Invest.:</i> J PAP <i>Tech. Officer:</i> GSFC/A POLAND <i>CASE Category:</i> 13 – PHYSICS</p> |
| <p>NAG 5 6724 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2601 INTEGRATING DISTRIBUTED OBJECT MANAGEMENT TECHNOLOGY INTO EOSDIS 12/12/1997 – 08/31/1998 FY98: \$354,600 Total: \$354,600 <i>Prin. Invest.:</i> R MUNTZ <i>Tech. Officer:</i> GSFC/R KREIDER <i>CASE Category:</i> 22 – COMPUTER SCIENCE</p> | <p>NAG 5 7555 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2609 REAL-TIME FORECASTING AND RAPID POST-EVENT ASSESSMENT OF EROSIONAL AND DEPOSITIONAL FLOOD DAMAGE 06/25/1998 – 08/31/2001 FY98: \$330,915 Total: \$330,915 <i>Prin. Invest.:</i> L C SMITH <i>Tech. Officer:</i> GSFC/ET ENGMAN <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE</p> |
| <p>NAG 5 6965 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2602 PICK-UP ION INSTABILITIES AT PLANETARY MAGNETOSPHERES 03/03/1998 – 03/31/2000 FY98: \$36,225 Total: \$36,225 <i>Prin. Invest.:</i> R J STRANGEWAY <i>Tech. Officer:</i> GSFC/D EVANS <i>CASE Category:</i> 11 – ASTRONOMY</p> | <p>NAG 5 7721 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2610 POLAR MAGNETIC FIELD EXPERIMENT 09/23/1998 – 09/30/1999 FY98: \$519,000 Total: \$519,000 <i>Prin. Invest.:</i> C T RUSSELL <i>Tech. Officer:</i> GSFC/R HOFFMAN <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER</p> |
| <p>NAG 5 6975 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2603 THE ROLE OF COMPANION STARS IN PLANETARY FORMATION 03/25/1998 – 06/30/2001 FY98: \$13,533 Total: \$13,533 <i>Prin. Invest.:</i> A GHEZ <i>Tech. Officer:</i> HQ/J BOYCE <i>CASE Category:</i> 11 – ASTRONOMY</p> | <p>NAG 8 1236 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2611 OSTWALD RIPENING OF LIQUID & SOLID DROPLETS IN LIQUID METAL MATRICES 05/17/1996 – 05/31/1998 FY98: \$50,000 Total: \$200,000 <i>Prin. Invest.:</i> A J ARDELL <i>Tech. Officer:</i> MSFC/C R TALLEY <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER</p> |
| <p>NAG 5 7123 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2604 LIGHT SCATTERING AND REMOTE SENSING OF CIRRUS CLOUDS USING MODIS CHANNELS 04/16/1998 – 03/31/1999 FY98: \$40,000 Total: \$40,000 <i>Prin. Invest.:</i> K N LIU <i>Tech. Officer:</i> GSFC/M D KING <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> | <p>NAG 9 814 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2612 USE OF MICROGRAVITY 08/01/1995 – 09/09/1999 FY98: \$225,000 Total: \$870,000 <i>Prin. Invest.:</i> E DIRKSEN <i>Tech. Officer:</i> JSC/N PELLIS <i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR)</p> |
| <p>NAG 5 7207 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2605 DEVELOPMENTAL GENES AND THE CAMBRIAN RADIATION 04/08/1998 – 07/31/1998 FY98: \$113,000 Total: \$113,000 <i>Prin. Invest.:</i> D JACOBS <i>Tech. Officer:</i> GSFC/M MEYER <i>CASE Category:</i> 11 – ASTRONOMY</p> | <p>NAG 9 864 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2613 SUESS UREY DISCOVERY 03/15/1996 – 04/30/1998 FY98: -\$12 Total: \$24,988 <i>Prin. Invest.:</i> K D MCKEEGAN <i>Tech. Officer:</i> JSC/E STANSBERRY <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NAG 5 7315 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2606 CONTINUED LONG-TERM MONITORING OF NGC 3516 04/28/1998 – 04/30/1999 FY98: \$10,375 Total: \$10,375 <i>Prin. Invest.:</i> R EDELSON <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 – ASTRONOMY</p> | <p>NAG 9 970 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2614 MOTOMIR RESISTIVE EXERCISE EQUIPMENT 11/18/1997 – 12/15/1998 FY98: \$62,000 Total: \$62,000 <i>Prin. Invest.:</i> R EDGERTON <i>Tech. Officer:</i> JSC/M C GRENISEN <i>CASE Category:</i> 59 – LIFE SCIENCE, OTHER</p> |
| <p>NAG 5 7321 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2607 CALIBRATION OF MAGNETICALLY INDUCED SOLAR VELOCITY SIGNALS FOR GOLF INVESTIGATION 06/25/1998 – 02/28/1999 FY98: \$76,331 Total: \$76,331 <i>Prin. Invest.:</i> R ULRICH <i>Tech. Officer:</i> GSFC/A POLAND <i>CASE Category:</i> 13 – PHYSICS</p> | <p>NAG 9 1020 UNIVERSITY OF CALIFORNIA – LOS ANGELES 2615 GENESIS DISCOVERY MISSION 07/16/1998 – 01/31/1999 FY98: \$37,000 Total: \$37,000 <i>Prin. Invest.:</i> K D MCKEEGAN <i>Tech. Officer:</i> JSC/E K STANSBERRY <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER</p> |

NAGW 1021 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2616**
GENERAL CIRCULATION OF THE SOUTHERN HEMISPHERE STRATOSPHERE
 05/01/1987 - 06/30/1998 FY98: \$0 Total: \$872,603
 Prin. Invest.: C R MECHOSO
 Tech. Officer: HQ/R D MCPETERS, HQ/M J PRATHER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 1874 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2617**
DYNAMICAL STUDIES OF THE ATMOSPHERES OF VENUS, JUPITER, URANUS AND IO
 01/03/1990 - 09/30/1997 FY98: \$0 Total: \$459,341
 Prin. Invest.: G SCHUBERT
 Tech. Officer: HQ/J BERGSTRAHL
 CASE Category: 11 - ASTRONOMY

NAGW 2047 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2618**
AN INVESTIGATION OF THE STRUCTURE AND MOTION OF THE JOVIAN MAGNETOSPHERE
 05/05/1990 - 03/31/1997 FY98: -\$33 Total: \$199,575
 Prin. Invest.: K K KHURANA
 Tech. Officer: HQ/M M MELLOTT, HQ/T PERRY
 CASE Category: 13 - PHYSICS

NAGW 2085 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2619**
DYNAMICS OF THE ORIGIN OF THE SOLAR SYSTEM
 07/23/1990 - 01/31/1997 FY98: -\$47 Total: \$267,298
 Prin. Invest.: W H KAULA
 Tech. Officer: HQ/T A MAXWELL
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 2086 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2620**
THERMAL AND DYNAMICAL PROCESSES IN THE EVOLUTION OF PLANETS AND SATELLITES
 05/14/1990 - 09/30/1997 FY98: \$0 Total: \$329,446
 Prin. Invest.: G SCHUBERT
 Tech. Officer: HQ/T A MAXWELL
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 2147 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2621**
NAGW-2147/UNIV OF CA @ LOS ANGELES/PAEOBIOLOGIC STUDIES OF THE ANTIQUITY & PRECAMBRIAN EVOLUTION
 07/13/1990 - 09/30/1997 FY98: \$0 Total: \$509,531
 Prin. Invest.: J W SCHOPF
 Tech. Officer: HQ/J D RUMNEL, HQ/S W FOGLEMAN
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 2243 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2622**
NAGW-2243/UNIV CA @ LOS ANGELES/METEORITIC CLUSES REGARDING NEBULAR & ASTEROIDAL TEMPERATURES
 06/13/1991 - 12/31/1996 FY98: -\$65 Total: \$216,625
 Prin. Invest.: J T WASSON
 Tech. Officer: HQ/J A NUTH
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 2270 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2623**
A SEARCH FOR BROWN DWARFS AND HIGH MASS PLANETS
 12/07/1990 - 10/31/1997 FY98: \$0 Total: \$280,800
 Prin. Invest.: B M ZUCKERMAN
 Tech. Officer: HQ/J A NUTH
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 2384 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2624**
MARS 94 SEISMOLOGY PARTICIPATION
 06/17/1991 - 07/31/1997 FY98: \$0 Total: \$100,599
 Prin. Invest.: P M DAVIS
 Tech. Officer: HQ/W QUAIDE
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3115 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2625**
NAGW-3115/UNIV CALISO KEY PROJECT: DUST DEBRIS AROUND SOLAR MASS STARS
 07/27/1992 - 09/30/1997 FY98: \$0 Total: \$544,819
 Prin. Invest.: E E BECKLIN
 Tech. Officer: HQ/L J CAROFF
 CASE Category: 11 - ASTRONOMY

NAGW 3132 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2626**
DYNAMICS OF OUTER SOLAR SYSTEM ORIGIN AND EVOLUTION
 07/14/1992 - 05/31/1997 FY98: -\$123 Total: \$169,877
 Prin. Invest.: NEWMAN
 Tech. Officer: HQ/J A NUTH
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3468 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2627**
DEFINITION AND DEVELOPMENT OF A PROTOTYPE MARS SEISMIC STATION
 04/09/1993 - 09/01/1997 FY98: -\$9,452 Total: \$290,548
 Prin. Invest.: P M DAVIS
 Tech. Officer: HQ/H C BRINTON
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3596 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2628**
ASYMMETRIC AURORAL PROCESSES ON THE GIANT PLANETS
 05/20/1993 - 03/31/1997 FY98: \$0 Total: \$157,600
 Prin. Invest.: R THORNE
 Tech. Officer: HQ/H C BRINTON
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3671 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2629**
STRATOSPHERIC HETEROGENEOUS CHEMISTRY AND MICROPHYSICS: MODEL, DEVELOPMENT, VALIDATION AND APPLICATION
 06/30/1993 - 06/30/1997 FY98: \$0 Total: \$387,500
 Prin. Invest.: R TURCO
 Tech. Officer: HQ/J A KAYE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 3948 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2630**
A STUDY OF FLOWS AND BOUNDARY LAYERS IN THE MAGNETOSHEATH AND OUTER MAGNETOSPHERE
 04/20/1994 - 03/31/1997 FY98: \$0 Total: \$128,500
 Prin. Invest.: C T RUSSELL
 Tech. Officer: HQ/E C WHIPPLE, HQ/J D BOHLIN
 CASE Category: 13 - PHYSICS

NAGW 3974 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2631**
A STUDY OF CURRENTS IN THE MIDDLE AND OUTER MAGNETOSPHERE
 05/10/1994 - 09/30/1997 FY98: \$0 Total: \$157,500
 Prin. Invest.: C T RUSSELL, NONE
 Tech. Officer: HQ/E C WHIPPLE, HQ/J D BOHLIN
 CASE Category: 13 - PHYSICS

NAGW 4112 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2632**
DEVELOPMENT OF HIGH RESOLUTION-HIGH SENSITIVITY ION
MICROPROBE FACILITY FOR COSMOCHEMICAL
 08/17/1994 - 05/31/1997 FY98: \$0 Total: \$239,997
Prin. Invest.: K D MCKEEGAN
Tech. Officer: HQ/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 4115 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2633**
RECENT LIQUID WATER ON MARS
 08/16/1994 - 03/31/1997 FY98: \$0 Total: \$150,000
Prin. Invest.: D A PAIGE
Tech. Officer: HQ/M MEYER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4130 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2634**
RELATIONSHIP OF BURSTY BULK FLOW EVENTS AND SUBSTORMS
 09/21/1994 - 09/30/1997 FY98: \$0 Total: \$57,800
Prin. Invest.: F V CORONITI
Tech. Officer: HQ/E C WHIPPLE, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4223 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2635**
DEVELOPMENTAL GENES AND THE CAMBRIAN RADIATION
 12/19/1994 - 07/31/1997 FY98: \$0 Total: \$304,900
Prin. Invest.: D JACOBS
Tech. Officer: HQ/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 4242 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2636**
INTEGRATING DISTRIBUTED OBJECT MANAGEMENT TECH AND EOSDIS
 01/10/1995 - 09/30/1997 FY98: \$0 Total: \$1,217,051
Prin. Invest.: R MUNTZ
Tech. Officer: HQ/R S MCGINNIS
CASE Category: 22 - COMPUTER SCIENCE

NAGW 4541 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2637**
GLOBAL MHD SIMULATIONS OF MESOSCALE STRUCTURES AT THE MAGNETOSPHERIC BOUNDARY
 05/26/1995 - 04/30/1998 FY98: \$0 Total: \$120,000
Prin. Invest.: J BERCHEM
Tech. Officer: HQ/R A HOFFMAN, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4543 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2638**
DEVELOPMENT OF A MODEL FOR THE NIGHT SIDE MAGNETOPAUSE USING GLOBAL SIMULATIONS
 05/26/1995 - 04/30/1998 FY98: \$0 Total: \$127,650
Prin. Invest.: J RAEDER
Tech. Officer: HQ/R A HOFFMAN, HQ/R A BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4553 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2639**
STUDIES OF THE INTRINSIC COMPLEXITIES OF MAGNETOTAIL ION DISTRIBUTIONS: THEORY AND OBSERVATION
 05/30/1995 - 04/30/1998 FY98: \$0 Total: \$165,300
Prin. Invest.: M ASHOUR-ABDALLA, NONE
Tech. Officer: HQ/R HOFFMAN
CASE Category: 13 - PHYSICS

NAGW 4770 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2640**
IS THE HIGH MULTIPLICITY OF T TAURI STARS IN TAURUS TYPICAL? A POTENTIAL PROBLEM FOR PLANETARY FORMATION
 09/16/1995 - 06/30/1998 FY98: \$0 Total: \$79,503
Prin. Invest.: A CHEZ
Tech. Officer: HQ/P G ROGERS
CASE Category: 11 - ASTRONOMY

NAGW 4840 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2641**
MODELLING WAVE DISTURBANCES FROM THE IMPACT OF COMET SHOMAKER-LEWY 9 W/JUPITER: EFFECTS OF WATER C
 10/06/1995 - 09/30/1997 FY98: \$0 Total: \$73,495
Prin. Invest.: G SCHUBERT
Tech. Officer: HQ/E BARKER
CASE Category: 11 - ASTRONOMY

NAGW 4844 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2642**
NEAR INFRARED SOLAR ORBIT TELESCOPE
 10/11/1995 - 06/30/1998 FY98: \$0 Total: \$62,475
Prin. Invest.: E L WRIGHT
Tech. Officer: HQ/M KAPLAN, HQ/D W WEEDMAN
CASE Category: 13 - PHYSICS

NAGW 4926 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2643**
INTERNET ACCESS TO ISEE-1 AND 2 MAGNETOMETER DATA
 02/24/1996 - 12/31/1996 FY98: \$0 Total: \$10,646
Prin. Invest.: R J STRANGEWAY
Tech. Officer: HQ/J B WILLETT, HQ/L DEMAS
CASE Category: 13 - PHYSICS

NAGW 4956 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2644**
SIMULATIONS OF THE EFFECTS OF PLANETARY WAVE OSCILLATIONS ON THE THERMOSPHERE AND IONOSPHERE USING A COUPLED
 03/26/1996 - 03/31/1998 FY98: \$0 Total: \$59,952
Prin. Invest.: R P TURCO
Tech. Officer: HQ/M M MELLOTT
CASE Category: 13 - PHYSICS

NAGW 5016 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2645**
INFLAMMATORY & MECHANICAL COMPONENTS OF MUSCLE INJURY
 04/02/1996 - 03/31/1998 FY98: \$0 Total: \$176,570
Prin. Invest.: J G TIDBALL, PH.D.
Tech. Officer: HQ/F SULZMAN
CASE Category: 56 - MEDICAL

NAGW 5029 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2646**
OBSERVATIONS AND MODELING OF THE TRANSIENT GENERAL CIRCULATION OF THE PACIFIC OCEAN
 04/11/1996 - 06/30/1997 FY98: \$0 Total: \$115,710
Prin. Invest.: J MC WILLIAMS
Tech. Officer: HQ/B C DOUGLAS, HQ/R C HARRISS
CASE Category: 33 - OCEANOGRAPHY

NAGW 5050 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2647**
AN INTERNATIONAL SYMPOSIUM ON THE SOURCES AND DETECTION OF DARK MATTER IN THE UNIVERSE
 04/30/1996 - 01/31/1997 FY98: -\$1 Total: \$9,601
Prin. Invest.: D B CLINE
Tech. Officer: HQ/L J KALUZIENSKI
CASE Category: 11 - ASTRONOMY

NAGW 5099 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2648**
CHONDRITIC METEORITES: NEBULAR AND PARENT BODY FORMATION
PROCESS
 06/28/1996 - 05/31/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: A E RUBIN
Tech. Officer: HQ/J NUTH, HQ/H C BRINTON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 5212 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2649**
SUBSTORM BREAK-UP AS A COUPLED MAGNETOSPHERE-IONOSPHERE
INSTABILITY
 09/25/1996 - 08/31/1997 FY98: \$0 Total: \$59,920
Prin. Invest.: R PELLAT
Tech. Officer: HQ/J D BOHLIN, HQ/G L WITHBROE
CASE Category: 13 - PHYSICS

NAS 5 30373 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2650**
MAGNETIC FIELD INVESTIGATION FOR POLAR SPACECRAFT
 04/12/1989 - 02/24/1998 FY98: \$17,155 Total: \$3,388,283
Prin. Invest.: C T RUSSELL
Tech. Officer: GSFC/D CROSBY
CASE Category: 11 - ASTRONOMY

NAS 9 18773 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2651**
RELATIONSHIP OF LONG-TERM ELECTROMYOGRAPHIC ACTIVITY TO
MUSCLE ATROPHY & PERFORMANCE
 10/27/1992 - 11/30/1997 FY98: \$0 Total: \$1,391,000
Prin. Invest.: R EGGERTON
Tech. Officer: JSC/A PLAZA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 9 19400 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2652**
FLIGHT EXPERIMENT/CORRELATION OF DISCONJUGATE EYE TORSION
WITH THE TIME COURSE OF SPACE ADAP SYNDROM
 07/31/1995 - 12/31/1998 FY98: \$0 Total: \$248,042
Prin. Invest.: C MARKHAM
Tech. Officer: JSC/A L LEE
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 1 264 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2653**
MODIFICATION OF THE U U RADIATION PROGRAM AND DEVELOPMENT OF
A NEW SOLAR RADIATION MODEL
 10/31/1997 - 10/31/1998 FY98: \$54,001 Total: \$54,001
Prin. Invest.: K N LIU
Tech. Officer: LARC/T P CHARLOCK, LARC/B A WIELICKI
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 2 374 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2654**
"LABORATORY FOR FLIGHT-SYSTEMS RESEARCH"
 10/01/1987 - 10/30/1998 FY98: \$1,260,874 Total: \$11,017,032
Prin. Invest.: A V BALAKRISHNAN
Tech. Officer: DFRC/K W ILIFF, DFRC/R R MEYER
CASE Category: 49 - ENGINEERING, OTHER

NCC 2 804 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2655**
"PSYCHOPHYSIOLOGY OF HUMANS IN SPACE"
 06/03/1993 - 11/30/1998 FY98: \$57,612 Total: \$963,866
Prin. Invest.: P S COWINGS
Tech. Officer: ARC/J P CONNALLY
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 1050 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2656**
ASTROBIOLOGY @ UCLA AN INTEGRATED MULTIDISCIPLINARY
APPROACH TO RESEARCH & EDUCATION
 08/19/1998 - 06/30/2003 FY98: \$165,000 Total: \$165,000
Prin. Invest.: B FUNNEGAR
Tech. Officer: AF C/T E BUNCH
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 5 149 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2657**
GRAND CHALLENGE RESEARCH
 08/09/1996 - 08/09/1999 FY98: \$645,000 Total: \$1,645,000
Prin. Invest.: C MECHOSO
Tech. Officer: GSFC/J R FISCHER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 5 301 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2658**
EARTH PARTNERS' PRIVATE NETWORK
 04/03/1998 - 02/28/2001 FY98: \$700,000 Total: \$700,000
Prin. Invest.: R HUNTZ
Tech. Officer: GSFC/M MAIDEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 30238 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2659**
NGT-30238/UNIV OF CA @ LOS ANGELES/GLOBAL CHANGE FELLOWSHIP
PROGRAM
 10/02/1994 - 03/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: R P TURCO
Tech. Officer: HQ/R A SCHIFFER, HQ/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 30334 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2660**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/07/1995 - 03/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: R P TURCO
Tech. Officer: HQ/R A SCHIFFER, HQ/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 51173 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2661**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/19/1993 - 08/31/1997 FY98: \$31 Total: \$65,969
Prin. Invest.: P P FRIEDMAN
Tech. Officer: ARC/M MOORE
CASE Category: 41 - AERONAUTICAL ENGR

NGT 51417 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2662**
GSRP
 08/29/1995 - 06/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: C A FULLER
Tech. Officer: HQ/G LESANE
CASE Category: 56 - MEDICAL

NGT 4 52406 UNIVERSITY OF CALIFORNIA - LOS ANGELES **2663**
GSRP AUTOMATED INTERFACING IN MULTIDISCIPLINARY AEROSPACE
 06/18/1998 - 07/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: N ATLURI
Tech. Officer: SSC/K GUPTA, SSC/L S VOELKER
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 30093 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2664**
AEROSOLS IN THE PACIFIC BASIN TROPOSPHERE-THEIR PROPERTIES AND IMPACT ON CLIMATE/REDEMANN
 09/10/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: R P TURCO *Prin. Invest.:* NONE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30133 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2665**
REMOTE SENSING OF CIRRUS CLOUDS USING MODIS AIRBORNE SIMULATOR (MAS) CHANNELS
 06/24/1998 – 08/30/2000 FY98: \$22,000 Total: \$22,000
Prin. Invest.: K LIQU
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 50013 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2666**
VIBRATION REDUCTION IN HELICOPTER ROTORS USING AN D TRAILING-EDGE FLAP
 01/02/1997 – 08/31/1997 FY98: \$0 Total: \$11,000
Prin. Invest.: P P FRIEDMANN
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 50143 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2667**
SATELLITE DETECTION OF MESOSCALE AND SUB-MESOSCALE S AND THEIR EFFECTS ON PLANKTON DISTRIBUTIONS
 09/11/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: W M HAMNER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50187 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2668**
A SEARCH FOR GIANT PLANETS ORBITING NEARBY STARS
 05/27/1998 – 06/30/1999 FY98: \$21,625 Total: \$21,625
Prin. Invest.: B ZUCKERMAN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 – ASTRONOMY

NGT 5 50202 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2669**
NEUROMUSCULAR AND ENDOCRINE FACTORS IN WEIGHTLESSNESS-INDUCED ATROPHY/
 07/02/1998 – 07/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: V EDGERTON
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50220 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2670**
HEALTH MGMT SYSTEM DESIGN & INTELLIGENT CONTROL OF FUTURE MINIATURE AUTONOMOUS SPACECRAFTS UTIL
 09/23/1998 – 09/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: P WANG, ESHAGHI
Tech. Officer: HQ/S MCGEE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 8 52844 UNIVERSITY OF CALIFORNIA – LOS ANGELES **2671**
GRADUATE STUDENT RESEARCH PROGRAM FELLOWSHIP
 08/22/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: M A ABDOU
Tech. Officer: MSFC/J DOWDY
CASE Category: 46 – MECHANICAL ENGR

NAG 5 3349 UNIVERSITY OF CALIFORNIA – RIVERSIDE **2672**
DUST EMISSION FROM CLASS O PROTOSTARS IN THE SERPENS CLOUD CORE
 08/12/1996 – 08/14/1998 FY98: \$0 Total: \$18,000
Prin. Invest.: M A BARSONY
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3666 UNIVERSITY OF CALIFORNIA – RIVERSIDE **2673**
OSSE 511 KEY OBSERVATIONS AND MAPPING (\$15,000); C OGGERED BATSE GAMMA RAY BURSTS (\$30,000);
 12/31/1996 – 12/31/1998 FY98: \$20,001 Total: \$90,001
Prin. Invest.: D D DIXON
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3925 UNIVERSITY OF CALIFORNIA – RIVERSIDE **2674**
CONTINUED STUDIES OF SOLAR AND EARTH-ALBEDO NEUTRO
 02/19/1997 – 02/14/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: T O'NEILL
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 5116 UNIVERSITY OF CALIFORNIA – RIVERSIDE **2675**
THE TIGRE INSTRUMENT FOR INTERMEDIATE – ENERGY GAMMA-RAY ASTRONOMY FROM 0.3 TO 100 MEV
 04/09/1997 – 11/30/1998 FY98: \$350,000 Total: \$699,590
Prin. Invest.: A D ZYCH
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5118 UNIVERSITY OF CALIFORNIA – RIVERSIDE **2676**
AN ARCSECOND RESOLUTION: AXGAM
 04/09/1997 – 12/31/1998 FY98: \$200,000 Total: \$400,000
Prin. Invest.: O T TUMER
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5211 UNIVERSITY OF CALIFORNIA – RIVERSIDE **2677**
ULDB COMPTON TELESCOPE MISSION ULDB COMPTON TELESCOPE MISSION
 09/17/1998 – 12/31/1999 FY98: \$35,306 Total: \$35,306
Prin. Invest.: A D ZYCHE
Tech. Officer: WFF/A B MERRITT
CASE Category: 11 – ASTRONOMY

NAG 5 6622 UNIVERSITY OF CALIFORNIA – RIVERSIDE **2678**
WORKSHOP FOR CHARACTERIZATION & MEASUREMENT OF THE HYDRAULIC PROPERTIES OF UNSATURATED POROUS MEDIA
 11/20/1997 – 10/31/1998 FY98: \$10,000 Total: \$10,000
Prin. Invest.: W VAN GENUCHTEN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7205 UNIVERSITY OF CALIFORNIA – RIVERSIDE **2679**
A DETAILED STUDY OF THE RECENTLY DISCOVERED ANNIHILATION FOUNTAIN
 04/10/1998 – 03/31/1999 FY98: \$12,599 Total: \$12,599
Prin. Invest.: D D DIXON
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 7275 UNIVERSITY OF CALIFORNIA - RIVERSIDE **2680**
GALACTIC DIFFUSE CONTINUUM MAPPING
 04/24/1998 - 04/30/1999 FY98: \$8,899 Total: \$8,899
 Prin. Invest.: D D NIXON
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 8 1164 UNIVERSITY OF CALIFORNIA - RIVERSIDE **2681**
MACRINIKEYKAR CRYSTAL GROWTH
 09/13/1995 - 01/31/1998 FY98: \$0 Total: \$401,257
 Prin. Invest.: A J MALKIN
 Tech. Officer: GSFC/M L PUSEY, GSFC/W W WITYEROW
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 4184 UNIVERSITY OF CALIFORNIA - RIVERSIDE **2682**
NON-ENZYMATIC OLIGOMERIZATION MONONUCLEOTIDES USING NON-STANDARD OLIGONUCLEOTIDE TEMPLATES
 10/28/1994 - 06/30/1998 FY98: \$0 Total: \$180,000
 Prin. Invest.: C SWITZER
 Tech. Officer: HQ/M MEYER
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 5 98173 UNIVERSITY OF CALIFORNIA - RIVERSIDE **2683**
GLAST INSTRUMENT TECHNOLOGY
 06/26/1998 - 02/15/1999 FY98: \$45,000 Total: \$45,000
 Prin. Invest.: A D ZYCH
 Tech. Officer: GSFC/M D JOSEPH
 CASE Category: 11 - ASTRONOMY

NAS 8 39763 UNIVERSITY OF CALIFORNIA - RIVERSIDE **2684**
CRYSTAL GROWTH FLIGHT APPARATUS
 10/30/1992 - 12/31/1998 FY98: \$2,257,000 Total: \$12,256,818
 Prin. Invest.: A MCPHERSON
 Tech. Officer: MSFC/R KING
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 8 80 UNIVERSITY OF CALIFORNIA - RIVERSIDE **2685**
ENHANCED DEWAR PROGRAM
 05/26/1995 - 08/31/1997 FY98: \$0 Total: \$718,000
 Prin. Invest.: A MCPHERSON
 Tech. Officer: MSFC/R KING
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 1 1259 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2686**
A STUDY OF CLOUD RADIATIVE FORCING AND FEEDBACK - FDP
 04/19/1991 - 10/31/1999 FY98: \$213,465 Total: \$1,318,577
 Prin. Invest.: V RAMANATHAN
 Tech. Officer: LARC/B A WIELICKI, LARC/J W YOUNGBLOOD
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 1 1516 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2687**
THE INTERACTION OF A SHOCK WITH SHEARED TURBULENCE NLPN 93-415
 06/29/1993 - 06/30/1997 FY98: -\$24 Total: \$97,236
 Prin. Invest.: S SARKAR
 Tech. Officer: LARC/J DRUMMOND
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1535 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2688**
A HYBRID SIMULATION OF THE ACOUSTIC RADIATION FROM GRID TURBULENCE
 09/20/1993 - 09/30/1997 FY98: \$0 Total: \$124,246
 Prin. Invest.: S SARKAR
 Tech. Officer: LARC/W E ZORUMSKI
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1965 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2689**
SUCCESS DATA PROCESSING AND ANALYSIS
 09/05/1997 - 04/30/1999 FY98: \$0 Total: \$114,600
 Prin. Invest.: F J VALERO
 Tech. Officer: LARC/D S MCDOUGAL
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2044 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2690**
RADIATIVE CHARACTERISTICS OF THE SURFACE AND CLOUDS IN THE ARCTIC USING RESEARCH AIRCRAFT
 04/03/1998 - 03/31/1999 FY98: \$171,436 Total: \$171,436
 Prin. Invest.: F J VALERO, S K POPE, P J FLATAU
 Tech. Officer: LARC/D S MCDOUGAL, LARC/J RAPER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1689 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2691**
HIGH PRESSURE COMBUSTION OF BINARY FUEL SPRAYS
 12/28/1994 - 11/27/1997 FY98: \$0 Total: \$110,000
 Prin. Invest.: F J WILLIAMS
 Tech. Officer: LERC/H D ROSS
 CASE Category: 46 - MECHANICAL ENGR

NAG 3 1888 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2692**
MATERIAL INSTABILITIES IN PARTICULATE SYSTEMS: UC SD 95-647R
 05/31/1996 - 03/30/2000 FY98: \$43,000 Total: \$163,000
 Prin. Invest.: J J GODDARD
 Tech. Officer: LERC/M E HILL
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2117 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2693**
DYNAMICS OF ACCELERATED INTERFACES: PARAMETRIC EXCITATION AND FLUIDS LOSING IN CLOSED CONTAINERS A
 01/28/1998 - 12/18/2000 FY98: \$73,000 Total: \$73,000
 Prin. Invest.: C POZRIKIDIS
 Tech. Officer: LERC/J R SKARDA
 CASE Category: 13 - PHYSICS

NAG 3 2161 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2694**
HIGH-PRESSURE COMBUSTION OF BINARY FUEL SPRAYS HIGH-PRESSURE COMBUSTION OF BINARY FUEL SPRAYS
 04/30/1998 - 2/25/1998 FY98: \$28,000 Total: \$28,000
 Prin. Invest.: F J WILLIAMS
 Tech. Officer: LERC/D DIETRICH
 CASE Category: 46 - MECHANICAL ENGR

NAG 5 1492 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2695**
PHYSICS OF BOUNDARIES AND THEIR INTERACTION IN SPACE PLASMAS
 01/08/1991 - 03/31/1997 FY98: \$0 Total: \$1,542,570
 Prin. Invest.: J OMIDI, K B QUEST
 Tech. Officer: GSFC/T J BIRMINGHAM
 CASE Category: 13 - PHYSICS

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| NAG 5 1630 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2696 GURANTEED TIME OBSERVATIONS SUPPORT FOR FAINT OBJECT SPECTROGRAPH (FOS) ON HST 06/24/1991 – 10/31/1998 FY98: \$0 Total: \$15,848,223 <i>Prin. Invest.:</i> R HARMS <i>Tech. Officer:</i> GSFC/S SOBIESKI CASE Category: 11 – ASTRONOMY | NAG 5 2811 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2704 THEORETICAL STUDIES IN GAMMA-RAY ASTROPHYSICS 12/08/1994 – 10/31/1998 FY98: \$0 Total: \$207,000 <i>Prin. Invest.:</i> R E LINGENFELTER <i>Tech. Officer:</i> GSFC/D WEST CASE Category: 11 – ASTRONOMY |
| NAG 5 1858 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2697 GUARANTEED TIME OBSERVATIONS OF THE HIGH RESOLUTION SPECTROGRAPH OF THE HUBBLE SPACE TELESCOPE 01/03/1992 – 11/14/1998 FY98: \$0 Total: \$827,640 <i>Prin. Invest.:</i> E BEAVER <i>Tech. Officer:</i> GSFC/A SMITH CASE Category: 11 – ASTRONOMY | NAG 5 2965 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2705 IMAGING OF IC 3639: A DISTANT CLUSTER WITH A GRAVITATIONAL ARC 06/12/1995 – 12/14/1996 FY98: \$0 Total: \$4,678 <i>Prin. Invest.:</i> W TUCKER <i>Tech. Officer:</i> GSFC/R PETRE CASE Category: 11 – ASTRONOMY |
| NAG 5 1910 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2698 SPACE GEODETIC DETECTORS OF TECTONIC SIGNALS 02/21/1992 – 09/30/1998 FY98: \$0 Total: \$291,968 <i>Prin. Invest.:</i> J B MINSTER <i>Tech. Officer:</i> GSFC/B G BILLS CASE Category: 32 – GEOLOGICAL SCIENCE | NAG 5 2967 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2706 MAIN GEOMAGNETIC FIELD MODELS FROM ORSTED AND MAGSAT DATA VIA A RIGOROUS GENERAL INVERSE THEORY 06/13/1995 – 12/31/1998 FY98: \$0 Total: \$120,909 <i>Prin. Invest.:</i> G E BACKUS <i>Tech. Officer:</i> GSFC/P T TAYLOR CASE Category: 32 – GEOLOGICAL SCIENCE |
| NAG 5 1914 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2699 PROGRAM FOR CONTINUED DEVELOPMENT AND USE OF OCEAN ACUSTIC/GPS GEODETIC TECHNIQUES 02/26/1992 – 11/14/1997 FY98: \$0 Total: \$740,000 <i>Prin. Invest.:</i> F N SPIESS <i>Tech. Officer:</i> GSFC/B G BILLS CASE Category: 32 – GEOLOGICAL SCIENCE | NAG 5 2968 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2707 CORE AND CRUSTAL GEOMAGNETIC FIELD MONITORING USING ORSTED AND MAGSAT DATA 06/13/1995 – 06/30/1998 FY98: \$0 Total: \$170,000 <i>Prin. Invest.:</i> C CONSTABLE <i>Tech. Officer:</i> GSFC/P TAYLOR CASE Category: 32 – GEOLOGICAL SCIENCE |
| NAG 5 1917 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2700 PERMANENT GPS GEODETIC ARRAY IN SOUTHERN CALIFORNIA 04/20/1992 – 10/31/1997 FY98: \$0 Total: \$616,061 <i>Prin. Invest.:</i> Y BOCK <i>Tech. Officer:</i> GSFC/B G BILLS CASE Category: 32 – GEOLOGICAL SCIENCE | NAG 5 3062 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2708 THE HISTORY OF BARYONS 09/22/1995 – 09/14/1998 FY98: \$0 Total: \$210,000 <i>Prin. Invest.:</i> G M FULLER <i>Tech. Officer:</i> GSFC/D WEST CASE Category: 11 – ASTRONOMY |
| NAG 5 2238 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2701 OBSERVATIONAL AND MODELING STUDIES OF CLOUDS AND THE HYDROLOGICAL CYCLE 04/09/1993 – 04/14/1997 FY98: \$0 Total: \$220,000 <i>Prin. Invest.:</i> R SOMERVILLE <i>Tech. Officer:</i> GSFC/M J SUAREZ CASE Category: 11 – ASTRONOMY | NAG 5 3115 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2709 THE SEARCH FOR ABSORPTION LINES IN GAMMA RAY BURST SPECTRA 10/18/1995 – 10/31/1997 FY98: \$0 Total: \$60,000 <i>Prin. Invest.:</i> D L BAND <i>Tech. Officer:</i> GSFC/J P NORRIS, GSFC/N WHITE CASE Category: 11 – ASTRONOMY |
| NAG 5 2288 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2702 ISOTOPIC COMPOSITION OF METHANE PRODUCED AND CONSUMED IN BOREAL ECOSYSTEMS 06/22/1993 – 06/30/1997 FY98: \$0 Total: \$281,800 <i>Prin. Invest.:</i> M WAHLEN <i>Tech. Officer:</i> GSFC/F G HALL, GSFC/P SELLERS CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NAG 5 3234 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2710 CHEMICAL ABUNDANCES AND EVOLUTION IN QUASARS AND ACTIVE GALACTIC NUCLEI 05/15/1996 – 05/14/1999 FY98: \$90,000 Total: \$150,000 <i>Prin. Invest.:</i> F W HAMANN <i>Tech. Officer:</i> GSFC/D WEST CASE Category: 11 – ASTRONOMY |
| NAG 5 2517 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2703 THE NATURE OF X-RAY EMISSION FROM NARROW-LINE RADIO GALAXIES 02/21/1994 – 03/14/1998 FY98: \$0 Total: \$41,339 <i>Prin. Invest.:</i> R D COHEN <i>Tech. Officer:</i> GSFC/N WHITE CASE Category: 11 – ASTRONOMY | NAG 5 3237 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2711 COSMOLOGICAL CENSUS OF BARYON DENSITY, IONIZATION AND ABUNDANCES 05/21/1996 – 05/31/1999 FY98: \$80,000 Total: \$240,000 <i>Prin. Invest.:</i> D R TYTLER <i>Tech. Officer:</i> GSFC/D WEST CASE Category: 11 – ASTRONOMY |

NAG 5 3272 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2712
TIMING AND BROAD BAND PULSE PHASE RESOLVED SPECTROSCOPY OF VELA X-1: CONFIRMATION OF CYCLOTRON
 07/02/1996 - 12/31/1998 FY98: \$0 Total: \$29,703
Prin. Invest.: D GRUBER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3273 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2713
SURVEY OF SOFT GAMMA RAY REPEATERS
 07/02/1996 - 12/31/1998 FY98: \$0 Total: \$46,980
Prin. Invest.: R ROTHSCHILD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3274 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2714
HARD X-RAY CONTINUA OF CYGNUS A AND IC5063: A TEST OF THE OBSCURATION/REFLECTION HYPOTHESIS FOR ..
 07/02/1996 - 01/14/1999 FY98: \$0 Total: \$39,832
Prin. Invest.: P BLANCO
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3275 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2715
XTE SEARCH FOR 44Ti DECAY LINES FROM YOUNG SUPERNOVA REMNANTS CAS A AND TYCHO
 07/15/1996 - 01/14/1998 FY98: \$0 Total: \$23,100
Prin. Invest.: R LINGENFELTER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3276 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2716
DEEP AND MONITORING OBSERVATIONS OF BLACK-HOLE CANDIDATES 1E 1740.7-2942 AND GRS 1758-258
 07/03/1996 - 01/14/1998 FY98: \$0 Total: \$8,330
Prin. Invest.: W HEINDL
Tech. Officer: GSFC/J SWANK
CASE Category: 12 - CHEMISTRY

NAG 5 3306 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2717
SS 433'S X-RAY ECLIPSE
 07/23/1996 - 01/31/1998 FY98: \$0 Total: \$20,621
Prin. Invest.: D BANDS
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3335 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2718
THE ISO-IRAS FAINT GALAXY SURVEY
 08/09/1996 - 08/14/1998 FY98: \$0 Total: \$27,349
Prin. Invest.: H E SMITH
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3381 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2719
PCA/HEXTE OBSERVATIONS OF COMA AND A2319
 08/30/1996 - 02/28/1998 FY98: \$0 Total: \$22,625
Prin. Invest.: Y RAPHAELI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3398 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2720
A STUDY OF FOUR DISTANT, EXTREMELY X-RAY LUMINOUS GALAXY CLUSTERS
 09/09/1996 - 03/14/1999 FY98: \$0 Total: \$16,069
Prin. Invest.: W TUCKER
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3450 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2721
ANALYSIS OF SKY FLUCTUATIONS FROM HEXTE
 10/07/1996 - 10/14/1997 FY98: \$0 Total: \$37,300
Prin. Invest.: D GRUBER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3511 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2722
IMPROVED ESTIMATES OF CLEAR DRY LONGWAVE FLUX AND TROPICAL GREENHOUSE EFFECT
 11/18/1996 - 09/14/1997 FY98: \$0 Total: \$31,523
Prin. Invest.: VI COLLINS
Tech. Officer: GSFC/B KURRANYS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3528 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2723
ASSESSMENT OF CLIMATIC AND ANTHROPOGENIC IMPACTS OF CYCLE CONSTRAINED BY ATMOSPHERIC MEASUREMENTS AND
 11/18/1996 - 05/31/1999 FY98: \$305,000 Total: \$488,000
Prin. Invest.: D KEELING
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3668 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2724
ANALYSIS OF THE NEW ORION GAMMA-RAY DATA
 12/31/1996 - 12/31/1998 FY98: \$9,968 Total: \$44,968
Prin. Invest.: R E LINGENFELTER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3685 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2725
GINGA GAMMA-RAY BURST LINE OCCURRENCE
 01/08/1997 - 01/14/1998 FY98: \$0 Total: \$5,000
Prin. Invest.: D L BAND
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3741 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2726
PULMONARY DEPOSITION OF AEROSOLS IN MICROGRAVITY
 03/17/1997 - 02/14/1999 FY98: \$0 Total: \$234,936
Prin. Invest.: K PRISK
Tech. Officer: GSFC/F M SULZMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 378 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2727
THE SOLAR WIND INTERACTION WITH COMETS AND OTHER N
 02/21/1997 - 02/28/1998 FY98: \$0 Total: \$77,500
Prin. Invest.: D MENDIS
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3810 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2728**
ACCRETION PHYSICS IN THE NEW ASYNCHRONOUS AM HER B
 01/14/1997 – 01/14/1999 FY98: \$0 Total: \$4,642
Prin. Invest.: R ROTHSCCHILD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3944 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2729**
DEVELOPMENT OF A PIXON-BASED IMAGE RECONSTRUCTION USER COMMUNITY
 03/04/1997 – 02/28/1999 FY98: \$130,000 Total: \$255,000
Prin. Invest.: D C PUETTER
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 4023 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2730**
ADVANCED GLOBAL ATMOSPHERIC GASES EXPERIMENT (AGAG)
 03/25/1997 – 01/31/1999 FY98: \$483,676 Total: \$963,158
Prin. Invest.: R F WEISS
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4145 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2731**
ISOTOPIC, CHEMICAL AND MINERALOGICAL INVESTIGATION MATERIALS
 03/25/1997 – 11/30/1998 FY98: \$313,000 Total: \$620,118
Prin. Invest.: R LUGMAIR
Tech. Officer: HQ/J BOYCE
CASE Category: 12 – CHEMISTRY

NAG 5 4284 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2732**
THE ORION PHENOMENON: PARTICLE FLUENCES IN THE SO
 04/01/1997 – 02/28/1999 FY98: \$26,667 Total: \$66,667
Prin. Invest.: D MARTI
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4410 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2733**
MONITORING OBSERVATIONS OF BLACK HOLE CANDIDATES 1 GRS 1758-258
 05/21/1997 – 05/14/1999 FY98: \$0 Total: \$9,583
Prin. Invest.: W HEINDL
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4417 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2734**
STUDIES OF LONG PERIOD VARIABILITY IN NEUTRON STAR
 05/01/1997 – 04/30/1998 FY98: \$0 Total: \$8,900
Prin. Invest.: W HEINDL
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4468 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2735**
INTERACTION OF THE SOLAR WIND WITH PLANETARY BOW S OF NON-LINEAR STRUCTURES
 06/02/1997 – 05/31/1999 FY98: \$29,167 Total: \$99,167
Prin. Invest.: D I SHEVCHENKO
Tech. Officer: GSFC/J D BOHLIN
CASE Category: 13 – PHYSICS

NAG 5 4543 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2736**
FRAGMENTARY SOLAR SYSTEM HISTORY
 05/05/1997 – 12/31/1998 FY98: \$108,333 Total: \$238,557
Prin. Invest.: D MARTI
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4546 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2737**
NASA SPECIALIZED CENTER OF RESEARCH AND TRAINING I THE CHEMISTRY OF EARLY SELF-REPLICATING SYSTEMS
 05/06/1997 – 03/31/1999 FY98: \$554,167 Total: \$1,496,167
Prin. Invest.: P L BADA, NONE
Tech. Officer: HQ/M MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 4563 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2738**
PREBIOTIC EVOLUTION OF NITROGEN COMPOUNDS
 05/29/1997 – 12/31/1998 FY98: \$81,667 Total: \$175,667
Prin. Invest.: D ARRHENIUS
Tech. Officer: GSFC/M MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 4571 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2739**
ANTARCTIC SPACE ANALOG PROGRAM
 06/23/1997 – 06/30/1999 FY98: \$52,408 Total: \$96,313
Prin. Invest.: L A PALINKAS
Tech. Officer: GSFC/M SHEPANEK
CASE Category: 11 – ASTRONOMY

NAG 5 4574 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2740**
METEORITIC SULFUR ISOTOPIC ANALYSIS
 07/07/1997 – 02/28/1999 FY98: \$20,667 Total: \$51,667
Prin. Invest.: D H THIEMENS
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4579 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2741**
NOBLE GAS SYSTEMATICS IN PLANETARY ATMOSPHERES: S FRACTIONATION MECHANISMS USING ION IMPLANTATION
 05/20/1997 – 09/30/1997 FY98: \$0 Total: \$40,248
Prin. Invest.: D MARTI
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4621 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2742**
SPECTRAL AND DYNAMICAL SIGNATURES OF BLACK HOLE HI
 05/21/1997 – 05/31/1999 FY98: \$0 Total: \$7,052
Prin. Invest.: W HEINDL
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4622 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2743**
XTE OBSERVATION OF THE TYCHO SUPERNOVA REMNANT
 05/21/1997 – 05/31/1999 FY98: \$0 Total: \$5,844
Prin. Invest.: P BLANCO
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4623 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2744**
PCA/HEXTE OBSERVATIONS OF NGC253 AND M82
 05/21/1997 - 05/31/1999 FY98: \$0 Total: \$24,355
Prin. Invest.: Y REPHAELI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4648 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2745**
MICROGRAVITY IN VITRO MODEL OF BONE: FLOW EFFECTS
 06/11/1997 - 05/31/2000 FY98: \$46,799 Total: \$180,419
Prin. Invest.: J A FRANGOS
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4658 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2746**
THEORETICAL STUDIES OF MAGNETIC RECONNECTION
 06/09/1997 - 05/14/1999 FY98: \$37,273 Total: \$115,173
Prin. Invest.: D B QUEST
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4659 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2747**
ORGANIC COMPONENTS OF COMETARY DUST
 05/30/1997 - 03/31/1998 FY98: \$0 Total: \$47,208
Prin. Invest.: D N FOMENKOVA
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4671 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2748**
SURFACE CHEMICAL COMPOSITION DETERMINATION FROM THE EXPERIMENT
 06/06/1997 - 05/31/1999 FY98: \$0 Total: \$6,697
Prin. Invest.: D R ARNOLD
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4775 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2749**
AN INTEGRATED SYSTEM FOR WATER BUDGET CLOSURE OVER MASS: A TRMM VALIDATION EFFORT
 07/15/1997 - 06/30/1999 FY98: \$44,000 Total: \$85,000
Prin. Invest.: J O ROADS
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4798 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2750**
ANALYSIS OF SKY FLUCTUATIONS FROM HEXTE II
 06/23/1997 - 06/30/1998 FY98: \$0 Total: \$28,582
Prin. Invest.: D GRUBER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4937 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2751**
AMINO ACIDS AND OTHER ORGANIC COMPONENTS IN ANTARCTIC
 06/23/1997 - 05/31/1999 FY98: \$16,667 Total: \$66,667
Prin. Invest.: J L BADA
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4938 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2752**
MICRO-DETECTION SYSTEM FOR DETERMINATION OF THE BI OF AMINO ACIDS
 06/23/1997 - 05/31/1999 FY98: \$22,917 Total: \$77,917
Prin. Invest.: P L BADA
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4948 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2753**
ISOTOPIC FRACTIONATION PROCESSES DURING PRE-SOLAR
 06/23/1997 - 04/30/2000 FY98: \$45,000 Total: \$70,000
Prin. Invest.: D J THIEMENS
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 5111 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2754**
BALLOON-BORNE HIGH ENERGY X-RAY SPECTROMETER (HEXIS) BASED ON CZT TECHNOLOGY
 04/07/1997 - 11/31/1998 FY98: \$402,750 Total: \$717,750
Prin. Invest.: J J MATTESON
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5176 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2755**
GLOBAL BATHYMETRIC PREDICTION FOR OCEAN MODELING A
 07/17/1997 - 07/14/1999 FY98: \$50,466 Total: \$103,303
Prin. Invest.: D T SANDWELL
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6073 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2756**
VARIABILITY OF PRECIPITATION OVER THE WESTERN UNITED STATES
 08/01/1997 - 06/30/1998 FY98: \$0 Total: \$39,762
Prin. Invest.: C CAYAN
Tech. Officer: GSFC/J FOSTER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6135 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2757**
VALIDATING THE USEFULNESS OF THE COMBINED GMS & GO FOR LONG-TERM GLOBAL CLIMATE CHANGE STUDIES
 08/13/1997 - 06/30/1999 FY98: \$85,000 Total: \$335,000
Prin. Invest.: J J SIMPSON
Tech. Officer: GSFC/J C DODGE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6149 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2758**
OCEAN TIDE LOADING COMPUTATION
 08/21/1997 - 08/31/1999 FY98: \$13,876 Total: \$27,069
Prin. Invest.: J C AGNEW
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6150 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2759**
SEAFLOOR GEODETIC MONITORING USING GPS AND ACOUSTIC POSITIONING TO NATURAL HAZARDS ON THE SE FLANK OF HAWAII
 08/21/1997 - 08/31/1999 FY98: \$174,838 Total: \$349,757
Prin. Invest.: J B RAND, NONE
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6179 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2760**
CONTINUOUS REMOTE MEASUREMENTS OF ATMOSPHERIC O₂ C RELATION TO INTERANNUAL VARIATIONS IN BIOLOGICAL
 08/19/1997 – 08/14/1999 FY98: \$144,478 Total: \$287,349
Prin. Invest.: R KEELING, NONE
Tech. Officer: GSFC/J A YODER
CASE Category: 33 – OCEANOGRAPHY

NAG 5 6202 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2761**
EFFECTS OF WHITCAPS ON SATELLITE-DERIVED OCEAN COLOR
 10/02/1997 – 06/30/1999 FY98: \$300,000 Total: \$300,000
Prin. Invest.: R FROUIN
Tech. Officer: GSFC/J A YODER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6212 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2762**
CORONAL VELOCITY DETERMINATION USING TWO-DIMENSION TECHNIQUES
 08/18/1997 – 06/14/1998 FY98: \$0 Total: \$80,087
Prin. Invest.: D V JACKSON, NONE
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 – PHYSICS

NAG 5 6327 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2763**
AN INVESTIGATION OF MID-OCEAN MESOSCALE VARIABILITY OF REAL OCEAN DATA AND A QUASI-GEOSTROPHIC MODEL
 09/23/1997 – 09/30/1998 FY98: \$0 Total: \$38,206
Prin. Invest.: B CORNUELLE
Tech. Officer: GSFC/E LINSTROM
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6334 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2764**
RXTE SEARCH FOR 44Ti DECAY LINES FROM THE CAS A SUPERNOVA REMNANT
 10/02/1997 – 09/30/1998 FY98: \$19,075 Total: \$19,075
Prin. Invest.: R LINGENFELTER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 6375 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2765**
BIOGEOCHEMICAL RESPONSE TO MESOSCALE PHYSICAL FORCING IN THE CALIFORNIA CURRENT SYSTEM
 10/03/1997 – 09/30/1999 FY98: \$359,952 Total: \$359,952
Prin. Invest.: P MILLER *Prin. Invest.:* NONE
Tech. Officer: GSFC/J A YODER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6414 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2766**
MODELING UV-B EFFECTS ON PRIMARY PRODUCTION THROUGHOUT THE SOUTHERNOCEAN USING MULTI-SENSOR SATELLITE DATA
 10/29/1997 – 10/31/1999 FY98: \$250,447 Total: \$250,447
Prin. Invest.: D LUBIN
Tech. Officer: GSFC/K ARRIGO
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NAG 5 6466 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2767**
OPTICAL AND ANCILLARY MEASUREMENTS AT HIGH LATITUDES IN SUPPORT OF THE MODIS OCEAN VALIDATION
 11/04/1997 – 09/30/1999 FY98: \$159,417 Total: \$159,417
Prin. Invest.: D STRAMSKI
Tech. Officer: GSFC/D STARR
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 6475 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2768**
SOLAR WIND MODELING FROM HELIOSPHERIC MISSIONS IN SITU DATA AND EARTH-BASED REMOTE SENSING OBSERVATIONS
 11/13/1997 – 10/31/1998 FY98: \$42,000 Total: \$42,000
Prin. Invest.: B JACKSON
Tech. Officer: GSFC/J LING
CASE Category: 11 – ASTRONOMY

NAG 5 6497 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2769**
PREDICTABILITY OF THE CALIFORNIA CURRENT SYSTEM
 10/08/1997 – 10/14/1999 FY98: \$444,018 Total: \$444,018
Prin. Invest.: D MILLER
Tech. Officer: GSFC/E LINSTORM
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6550 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2770**
PRODUCTION, DISTRIBUTION AND EVOLUTION OF RADIOACTIVE NUCLEI
 11/17/1997 – 09/30/1998 FY98: \$50,920 Total: \$50,920
Prin. Invest.: R LINGENFELTER, F TIMMES
Tech. Officer: GSFC/J P NORRIS, GSFC/N GEHRELS
CASE Category: 11 – ASTRONOMY

NAG 5 6559 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2771**
SEASONAL TO DECADEAL-SCALE VARIABILITY IN SATELLITE OCEAN COLOR AND SEA SURFACE TEMPERATURE FOR THE CALIFORNIA CURRENT SYSTEM
 10/27/1997 – 10/31/2000 FY98: \$175,680 Total: \$175,680
Prin. Invest.: B MITCHELL
Tech. Officer: GSFC/J YODER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6595 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2772**
EARTH REMOTE SENSING CENTER OF EXCELLENCE AT SCRIPPS INSTITUTION OF OCEANOGRAPHY
 12/15/1997 – 09/30/1999 FY98: \$352,528 Total: \$352,528
Prin. Invest.: G MITCHELL *Prin. Invest.:* NONE
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6668 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2773**
SOUTHERN OCEAN SEASONAL NET PRODUCTION FROM ATMOSPHERIC CO₂ AND OCEAN DATA SETS
 11/26/1997 – 12/31/1998 FY98: \$102,747 Total: \$102,747
Prin. Invest.: R F KEELING
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6743 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2774**
THE SPECTRAL EVOLUTION OF GAMMA-RAY BURSTS
 01/12/1998 – 01/14/1999 FY98: \$16,300 Total: \$16,300
Prin. Invest.: D BAND
Tech. Officer: GSFC/J NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 6931 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2775**
EQUATOR-S: MISSION OPERATIONS & DATA ANALYSIS PHASE
 02/02/1998 - 01/31/1999 FY98: \$96,202 Total: \$96,202
 Prin. Invest.: C E MCILWAIN
 Tech. Officer: GSFC/M HESSE
 CASE Category: 13 - PHYSICS

NAG 5 6947 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2776**
NUMERICAL AND ANALYTICAL STUDIES OF THE SHOCKED SOLAR WIND INTERACTION WITH THE DAYSIDE MANTLE OF V
 02/26/1998 - 03/31/1999 FY98: \$83,232 Total: \$83,232
 Prin. Invest.: K QUEST
 Tech. Officer: GSFC/D EVANS
 CASE Category: 11 - ASTRONOMY

NAG 5 7000 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2777**
HIGH RESOLUTION STUDY OF THE X-RAY TURN-ON IN HER X-1
 02/06/1998 - 02/14/1999 FY98: \$14,739 Total: \$14,739
 Prin. Invest.: D GRUBER
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7023 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2778**
USING 3C273 TO CROSS-CALIBRATE XTE, ASCA AND SAXXTE PROPOSAL - AO1
 02/12/1998 - 02/14/1999 FY98: \$6,748 Total: \$6,748
 Prin. Invest.: P BLANCO
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7045 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2779**
THEORETICAL STUDIES IN COSMIC RAY AND GAMMA RAY ASTROPHYSICS AND LIGHT ELEMENT NUCLEOSYNTHESIS -
 03/18/1998 - 02/28/1999 FY98: \$60,295 Total: \$60,295
 Prin. Invest.: R E LINGENFELTER
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7096 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2780**
ANOMALOUS HEAT BUDGETS IN INTERIOR PACIFIC OCEAN ON SEASONAL TO INTERANNUAL TIMESCALES
 05/27/1998 - 04/30/2000 FY98: \$120,732 Total: \$120,732
 Prin. Invest.: W WHITE
 Tech. Officer: GSFC/E LINDSTROM
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 7100 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2781**
OPTICAL MEASUREMENTS AND MODELING TO ESTIMATE CONCENTRATIONS AND FLUXES OF ORGANIC MATTER IN THE SOLAR WIND
 06/04/1998 - 05/30/2000 FY98: \$235,955 Total: \$235,955
 Prin. Invest.: D STRAMSKI
 Tech. Officer: GSFC/J W CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7119 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2782**
ANALYSIS OF SKY FLUCTUATIONS FROM HEXTE III; EXAMINATION OF THE CYCLOTRON LINES IN THE SPECTRUM OF
 04/16/1998 - 03/31/1999 FY98: \$26,128 Total: \$26,128
 Prin. Invest.: D E GRIBER
 Tech. Officer: GSFC/K SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7277 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2783**
XTE PROPOSAL - THE POWER OF SS433'S JETS
 04/15/1998 - 04/14/1999 FY98: \$7,500 Total: \$7,500
 Prin. Invest.: C BAND
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7295 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2784**
CORONAL RING CONSTRUCTION USING LASCO AND UVCS OBSERVATIONS
 04/13/1998 - 04/30/1999 FY98: \$80,000 Total: \$80,000
 Prin. Invest.: F HICK
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 7332 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2785**
HIGH ENERGY SPECTRA AND VARIABILITY OF LOW REDSHIFT AGN: NARROW LINE X-RAY GALAXIES.
 04/24/1998 - 06/30/1999 FY98: \$9,323 Total: \$9,323
 Prin. Invest.: F R BLANCO
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7362 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2786**
ASCA PROPOSAL - ASCA AND HST OBSERVATIONS OF BL Lac 0236+164 AND THE INTERVENING SYSTEM
 05/05/1998 - 04/30/1999 FY98: \$14,000 Total: \$14,000
 Prin. Invest.: R D COHEN
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 7400 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2787**
A HARD X-RAY SPECTRUM OF THE HIDDEN QUASAR IN THE NARROW LINE RADIO GALAXY 3C321
 05/13/1998 - 05/31/1999 FY98: \$15,100 Total: \$15,100
 Prin. Invest.: R D COHEN
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 7440 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2788**
XTE PROPOSAL (30183) CONFIRMATION OF THE TWO GAMMA-RAY SPECTRAL STATES OF GRS1915+105
 06/02/1998 - 06/30/1999 FY98: \$9,063 Total: \$9,063
 Prin. Invest.: W A HEINDL
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7568 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2789**
016ARD X-RAY SPECTRUM OF THE HIDDEN QUASAR IN THE NARROW LINE RADIO GALAXY 3C321
 07/09/1998 - 07/31/1999 FY98: \$0 Total: \$0
 Prin. Invest.: R COHEN
 Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 7611 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2790**
IMPROVED SPECTRAL CHARACTERIZATION OF THE GEOMAGNETIC FIELD (SENH98-0124)
 07/24/1998 - 01/31/1999 FY98: \$37,000 Total: \$37,000
 Prin. Invest.: R L PARKER
 Tech. Officer: GSFC/H B FREY
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7614 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2791**
FUNDING FOR "EARTH CONDUCTIVITY FROM SATELLITE MAGNETIC DATA"(SENH98-0123)
 07/24/1998 – 01/14/1999 FY98: \$42,000 Total: \$42,000
Prin. Invest.: C G CONSTABLE
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 7643 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2792**
XTE PROPOSAL – (20102) SS 433' HIGH ENERGY SPECTRU M
 08/26/1998 – 08/31/1999 FY98: \$24,672 Total: \$24,672
Prin. Invest.: D BAND
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7653 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2793**
QUANTITATIVE ASSESSMENT OF THE INTEGRATED RESPONSE IN GLOBAL HEAT AND MOISTURE BUDGETS TO CHANGIN
 08/25/1998 – 08/31/2001 FY98: \$70,000 Total: \$70,000
Prin. Invest.: W WHITE
Tech. Officer: HQ/D EVANS
CASE Category: 11 – ASTRONOMY

NAG 8 1516 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2794**
VARIABILITY AND PREDICTABILITY OF LAND-ATMOSPHERE OBSERVATIONAL AND MODELING STUDIES
 05/12/1998 – 04/30/2001 FY98: \$51,466 Total: \$51,466
Prin. Invest.: J ROADS
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 9 837 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2795**
ROLE OF FLUID SHEAR ON 3-D BONE TISSUE CULTURE
 09/27/1995 – 08/26/1999 FY98: \$81,000 Total: \$312,000
Prin. Invest.: J A FRANGO
Tech. Officer: JSC/N PELLIS
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 9 1002 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2796**
DETERMIN OXYGEN BLANK & SUITABILITY CVD DIAMOND
 04/30/1998 – 04/29/1999 FY98: \$236,000 Total: \$236,000
Prin. Invest.: M H THIEMENS
Tech. Officer: JSC/E K STANSBERRY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 1150 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2797**
USE OF GENERALIZED ADIABETIC THEORY TO STUDY MAGNETOSPHERIC
 09/09/1987 – 09/30/1998 FY98: \$0 Total: \$426,000
Prin. Invest.: E C WHIPPLE
Tech. Officer: HQ/M M MELLOTT, HQ/T W PERRY
CASE Category: 13 – PHYSICS

NAGW 2034 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2798**
GLOBAL ATMOSPHERIC GASES EXPERIMENT (GAGE)
 07/16/1990 – 09/30/1997 FY98: \$0 Total: \$2,996,869
Prin. Invest.: R F WEISS
Tech. Officer: HQ/M J KURYLO, HQ/M J PRATHER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAGW 2618 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2799**
ELECTRON DYNAMICS AND TRANSPORT PROPERTIES AT PLA SMA DISCONTINUITIES
 07/18/1991 – 05/31/1997 FY98: \$0 Total: \$255,993
Prin. Invest.: D KRAUSS-VARBAN
Tech. Officer: HQ/M M MELLOTT, HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 2881 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2800**
THE CHEMISTRY OF EARLY SELF-REPLICATING SYSTEMS
 02/26/1992 – 12/31/1997 FY98: \$0 Total: \$4,693,000
Prin. Invest.: S L MILLER
Tech. Officer: HQ/R J WHITE
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 2987 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2801**
ASSESSMENT OF ANTHROPOGENIC AND CLIMATE IMPACTS ON THE GLOBAL CARBON CYCLE
 03/20/1992 – 09/30/1996 FY98: \$0 Total: \$650,000
Prin. Invest.: C D KEELING
Tech. Officer: HQ/R E MURPHY, HQ/D M BUTLER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 3285 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2802**
NAGW-3285/SCRIPPS INST. OF OCEANOGRAPHY/ISOTOPIC, CHEMICAL, & MINERALOGICAL INVESTIGATIONS
 11/27/1992 – 03/31/1998 FY98: \$0 Total: \$1,258,811
Prin. Invest.: G W LUGMAIR
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 3498 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2803**
NAGW-3498/UNIV CALIF SAN DIEGO/INVERSION SCHEMES P ARAMETER DATA
 04/29/1993 – 12/31/1996 FY98: \$0 Total: \$330,535
Prin. Invest.: R FROUIN
Tech. Officer: HQ/M BALTUCK, HQ/R C HARRISS
CASE Category: 33 – OCEANOGRAPHY

NAGW 3551 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2804**
METEORITIC SULFUR ISOTOPIC ANALYSIS
 04/23/1993 – 09/30/1997 FY98: \$0 Total: \$204,807
Prin. Invest.: M THIEMANS
Tech. Officer: HQ/J BOYCE
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 3896 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2805**
NAGW-3896/B SCRIPPS INST. OF OCEAN. "GLOBAL SURF. ULTRAVIOLET RADIATION CLIMATOL..." 36-MONTHS
 03/16/1994 – 03/31/1998 FY98: \$0 Total: \$327,300
Prin. Invest.: D LUBIN
Tech. Officer: HQ/A KAYE, HQ/R A SCHIFFER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAGW 4372 UNIVERSITY OF CALIFORNIA – SAN DIEGO **2806**
PULMONARY DEPOSITION OF AEROSOLS IN MICROGRAVITY
 03/31/1995 – 02/14/1998 FY98: \$0 Total: \$396,507
Prin. Invest.: G K PRISK
Tech. Officer: HQ/F SULZMAN
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 4422 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2807**
THE ORION PHENOMENON: PARTICLE FLUENCES IN THE EARLY SOLAR
NEBULA
 06/02/1995 - 09/30/1997 FY98: \$0 Total: \$100,267
Prin. Invest.: K MARTI
Tech. Officer: HQ/P G ROGERS
CASE Category: 11 - ASTRONOMY

NAGW 4684 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2808**
RADIATIVE EFFECTS OF AEROSOLS
 08/16/1995 - 07/31/1997 FY98: \$0 Total: \$202,560
Prin. Invest.: F J VALERO
Tech. Officer: HQ/R A SCHIFFER
CASE Category: 11 - ASTRONOMY

NAGW 4726 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2809**
APPLICATION AND DEVELOPMENT OF ADVANCED IMAGE RECONSTRUCTION
ALGORITHMS FOR NASA ASTROPHYSICS DATA
 08/28/1995 - 09/30/1997 FY98: \$0 Total: \$311,635
Prin. Invest.: R C PUETTER
Tech. Officer: HQ/D A HOLLAND, HQ/J H BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAGW 4777 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2810**
IMPROVED ESTIMATES OF CLEAR SKY LONGWAVE FLUX AND APPLICATION
TO THE TROPICAL GREENHOUSE EFFECT
 09/16/1995 - 09/14/1997 FY98: \$0 Total: \$30,478
Prin. Invest.: W COLLINS
Tech. Officer: HQ/R A SCHIFFER
CASE Category: 33 - OCEANOGRAPHY

NAGW 4835 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2811**
AN INVESTIGATION OF MID-OCEAN MESOSCALE VARIABILITY USING A
COMBINATION OF REAL OCEAN DATA
 11/13/1995 - 09/30/1996 FY98: \$0 Total: \$33,761
Prin. Invest.: B CORNUELLE *Prin. Invest.:* NONE
Tech. Officer: HQ/M BALTUCK
CASE Category: 33 - OCEANOGRAPHY

NAS 5 30720 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2812**
HIGH ENERGY X-RAY TIMING EXPERIMENT FOR XTE PROJECT
 11/01/1989 - 01/31/1999 FY98: \$351,620 Total: \$29,004,560
Prin. Invest.: R E ROTHSCHILD
Tech. Officer: GSFC/W D DAVIS
CASE Category: 11 - ASTRONOMY

NAS 5 33019 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2813**
GLRS SCIENCE TEAM MEMBER STUDY
 10/05/1989 - 10/31/1998 FY98: \$132,000 Total: \$669,752
Prin. Invest.: J B MINSTER
Tech. Officer: GSFC/G SOFFEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 97121 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2814**
PULSE SHAPE DISCRIMINATOR FOR INTEGRAL SPECTROMETER (LETTER
CONTRACT)
 01/24/1997 - 09/30/2001 FY98: \$701,626 Total: \$2,743,626
Prin. Invest.: J L MATTESON, R P LIN
Tech. Officer: GSFC/J P MURPHY
CASE Category: 11 - ASTRONOMY

NAS 5 97130 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2815**
BIO-OPTIONAL MEASUREMENT-MODELING OF CA CURRENT & POLAR
OCEAN
 08/18/1997 - 08/17/1998 FY98: \$0 Total: \$314,000
Prin. Invest.: B C MITCHELL
Tech. Officer: GSFC/C R MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NAS 5 97135 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2816**
SATELLITE OCEAN COLOR VALIDATION USING MERCHANT SHIP
 09/22/1997 - 09/21/1999 FY98: \$22,000 Total: \$189,120
Prin. Invest.: R F ROUIN
Tech. Officer: GSFC/J L MUELLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 8 36081 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2817**
R (SD)
 06/01/1984 - 04/30/1998 FY98: \$87,500 Total: \$4,349,249
Prin. Invest.: J L MATTERSON
Tech. Officer: MSFC/GJ FISHMAN
CASE Category: 11 - ASTRONOMY

NAS 9 18764 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2818**
STUDIES OF PULMONARY FUNCTION IN WEIGHTLESSNESS
 10/02/1992 - 09/15/1998 FY98: \$0 Total: \$2,658,112
Prin. Invest.: J E WEST
Tech. Officer: GSFC/V ELLERBE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAS 9 19434 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2819**
LIFE SCIENCES FLIGHT EXPERIMENT E198, SLEEP & RESPIRATION IN
MICROGRAVITY
 12/06/1995 - 01/28/1999 FY98: \$445,865 Total: \$1,295,865
Prin. Invest.: J E WEST
Tech. Officer: JSC/S G SAWYER
CASE Category: 56 - MEDICAL

NCC 1 305 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2820**
PILOT STUDY OF SONIC BOOM PENETRATION INTO THE OCEAN
 07/06/1998 - 01/31/1999 FY98: \$70,000 Total: \$70,000
Prin. Invest.: R A SOHN
Tech. Officer: LARC/G L MCANINCH, LARC/K P SHEPHARD
CASE Category: 13 - PHYSICS

NCC 2 852 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2821**
EXERCISE WITHIN LBNP TO PRODUCE ARTIFICIAL GRAVITY
 04/21/1994 - 01/31/1998 FY98: \$0 Total: \$691,449
Prin. Invest.: A J HARGENS
Tech. Officer: ARCC/M WINGET
CASE Category: 56 - MEDICAL

NCC 2 978 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2822**
NONINVASIVE MEASUREMENT OF INTRACRANIAL PRESSURE USING
ULTRASOUND
 02/04/1997 - 12/31/1999 FY98: \$113,011 Total: \$445,163
Prin. Invest.: R A PEDOWITZ
Tech. Officer: ARCC/M WINGET, ARCC/G C JAHNS
CASE Category: 56 - MEDICAL

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| <p>NCC 2 996 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2823 TRAINING REQUIREMENTS FOR AUTOFLIGHT USE IN A DATA LINK ATC ENVIRONMENT 06/11/1997 – 09/30/1998 FY98: \$64,499 Total: \$76,999 Prin. Invest.: E HUTCHINS Tech. Officer: ARC/S CASNER, ARC/E A PALMER CASE Category: 69 – PSYCHOLOGY, OTHER</p> | <p>NCC 5 221 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2831 EXPLORING EDUCATIONAL LINKAGES 09/15/1997 – 07/31/1998 FY98: \$0 Total: \$95,000 Prin. Invest.: P K RIDE Tech. Officer: GSFC/P MOUNTJOY CASE Category: 99 – MULTI INTERDISCIPL, OTHER</p> |
| <p>NCC 2 1032 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2824 A LONGITUDINAL STUDY OF SKILL ACQUISITION IN AUTOMATION-EQUIPPED COMMERCIAL TRANSPORT AIRCRAFT 05/18/1998 – 01/31/1999 FY98: \$54,824 Total: \$54,824 Prin. Invest.: E L HUTCHENS Tech. Officer: ARC/S M CASNER CASE Category: 69 – PSYCHOLOGY, OTHER</p> | <p>NCC 5 230 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2832 CORRELATED NOISE IN GPS TIME SERIES AND ITS EFFECT MODELS 08/22/1997 – 08/31/1999 FY98: \$43,891 Total: \$92,292 Prin. Invest.: H JOHNSON, NONE Tech. Officer: GSFC/H FREY CASE Category: 32 – GEOLOGICAL SCIENCE</p> |
| <p>NCC 2 1034 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2825 STUDENT/MENTOR DESIGN PROJECTS FOR PLANETARY ENTRY & SAMPLE RETURN MISSIONS 04/29/1998 – 03/31/1999 FY98: \$84,236 Total: \$84,236 Prin. Invest.: J R ARNOLD, M J WISKERCHEN Tech. Officer: ARC/D J RASKY CASE Category: 99 – MULTI INTERDISCIPL, OTHER</p> | <p>NCC 5 257 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2833 EARTHKAM (EARTH KNOWLEDGE ACQUIRED BY MIDDLE SCHOOL STUDENTS) 11/25/1997 – 10/31/1998 FY98: \$654,888 Total: \$654,888 Prin. Invest.: D K RIDE Tech. Officer: HQ/P MOUNTJOY CASE Category: 99 – MULTI INTERDISCIPL, OTHER</p> |
| <p>NCC 2 5191 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2826 SULFUR IN COMETARY DUST 10/23/1996 – 09/30/1997 FY98: \$0 Total: \$30,000 Prin. Invest.: D FOMENKOVA Tech. Officer: ARC/D CHANG CASE Category: 12 – CHEMISTRY</p> | <p>NGT 40005 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2834 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM 10/02/1989 – 01/31/1998 FY98: \$0 Total: \$3,084,278 Prin. Invest.: J ARNOLD Tech. Officer: HQ/E T SCHWARTZ CASE Category: 99 – MULTI INTERDISCIPL, OTHER</p> |
| <p>NCC 2 5232 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2827 AN EVALUATION OF BIOGENICITY IN ALH84001 08/12/1997 – 03/31/1999 FY98: \$2,400 Total: \$14,676 Prin. Invest.: G ARRHENUS, S MORGAN Tech. Officer: ARC/D BLAKE CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</p> | <p>NGT 1 52133 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2835 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 06/14/1996 – 12/31/1998 FY98: \$22,000 Total: \$54,000 Prin. Invest.: J M SCHOPL, F BERMAN Tech. Officer: LARC/R HATHAWAY CASE Category: 99 – MULTI INTERDISCIPL, OTHER</p> |
| <p>NCC 3 407 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2828 SCIENTIFIC SUPPORT FOR A PROPOSED SPACE SHUTTLE DROPLET BURNING EXPERIMENT 02/28/1995 – 02/09/1999 FY98: \$97,002 Total: \$349,002 Prin. Invest.: F A WILLIAMS Tech. Officer: LERC/H D ROSS CASE Category: 49 – ENGINEERING, OTHER</p> | <p>NGT 2 52237 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2836 DRAGSAT PROJECT 09/25/1997 – 08/31/1998 FY98: \$0 Total: \$15,000 Prin. Invest.: J R ARNOLD Tech. Officer: ARC/D J RASKY CASE Category: 41 – AERONAUTICAL ENGR</p> |
| <p>NCC 3 506 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2829 STRETCHED DIFFUSION FLAMES IN VON KARMAN SWIRLING FLOWS 09/25/1996 – 06/30/2000 FY98: \$0 Total: \$61,995 Prin. Invest.: F A WILLIAMS Tech. Officer: LERC/K R SACKSTEDER, LERC/H D ROSS CASE Category: 19 – PHYSICAL SCIENCE, OTHER</p> | <p>NGT 2 52251 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2837 ACHIEVING APPLICATION PERFORMANCE ON THE INFORMATION POWER GRID 09/18/1998 – 09/14/1999 FY98: \$22,000 Total: \$22,000 Prin. Invest.: F BERMAN Tech. Officer: ARC/C H SCHULBACK CASE Category: 22 – COMPUTER SCIENCE</p> |
| <p>NCC 3 569 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2830 NEW APPROACHES FOR INTEGRALLY DAMPED COMPOSITE FAN BLADES 07/25/1997 – 06/23/1999 FY98: \$34,996 Total: \$78,996 Prin. Invest.: J KOSMATKA Tech. Officer: LERC/O MEHMED CASE Category: 46 – MECHANICAL ENGR</p> | <p>NGT 3 52333 UNIVERSITY OF CALIFORNIA – SAN DIEGO 2838 GRADUATE STUDENT RESEARCHERS PROGRAM 06/11/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: J KOSMATKA Tech. Officer: LERC/F J MONTEGANI CASE Category: 49 – ENGINEERING, OTHER</p> |

NGT 5 42 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2839**
FELLOWSHIP FOR GRADUATE STUDENTS WITH THE JOINT CE SYSTEM
SCIENCE (JCOSS)
 06/17/1997 - 05/31/1999 FY98: \$0 Total: \$150,000
Prin. Invest.: F VALERO
Tech. Officer: GSFC/A J BUSALACCHI
CASE Category: 33 - OCEANOGRAPHY

NGT 5 30036 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2840**
OCEAN COLOR MODELS OF PRIMARY PRODUCTION FOR PHAEO POLAR
REGIONS
 10/17/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: B MITCHELL
Tech. Officer: GSFC/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

NGT 5 30122 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2841**
LONG-TERM VARIABILITY IN PHYTOPLANKTON GROWTH RATE S & PRI-
MARY PRODUCTIVITY ESSF RECIPIENT: AMY SHAN
 10/01/1997 - 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: R GOERCKE, NONE
Tech. Officer: GSFC/G ASRAR
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 30150 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2842**
BIOSPHERIC INFLUENCE ON ATMOSPHERIC CO₂, VIEWED FROM THE
D180 SIGNATURE/NASAEARTH SYSTEM SCIENCE F
 08/28/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M WAHLEN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40007 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2843**
SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COL-
LEGE AND FELLOWSHIP PROGRAM.
 01/24/1997 - 01/31/1999 FY98: \$475,000 Total: \$901,000
Prin. Invest.: J A ARNOLD
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40057 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2844**
"GLOBAL LEARNING AND OBSERVATIONS TO BENEFIT THE E_U PROGRAM/
FALL WORKSHOP
 02/12/1997 - 01/31/1998 FY98: \$0 Total: \$20,269
Prin. Invest.: J R ARNOLD
Tech. Officer: GSFC/L OSTENDORF
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50131 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2845**
IMPROVING SCIENTIFIC APPLICATION PERFORMANCE BY DY
 09/10/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: F BERMAN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50169 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2846**
THE FLUID FEATURE HIERARCHY: A FRAMEWORK FOR MACH INE VISION
 10/31/1997 - 07/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: E MJOLSESS
Tech. Officer: HQ/A NURRIDIN
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 50183 UNIVERSITY OF CALIFORNIA - SAN DIEGO **2847**
THREE ASTROPHYSICAL GRILLS: THE ORIGINS OF DARK MATTER, GAM-
MA-RAY BURSTS, AND HEAVY ELEMENTS
 05/27/1998 - 06/10/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: G N FULLER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 - PHYSICS

NAG 2 1086 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO **2848**
OSTEOMARS: EFFECTS OF MICROGRAVITY ON OSTEOBLAST GENE
EXPRESSION IN VARIABLE GRAVITY
 10/04/1996 - 06/30/1999 FY98: \$255,822 Total: \$580,833
Prin. Invest.: M F FULFORD
Tech. Officer: AF C/C M WINGET, ARC/P D SAVAGE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 6374 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO **2849**
ROLE OF INTEGRINS IN MECHANICAL LOADING OF OSTEOBLASTS
 10/03/1997 - 06/30/1999 FY98: \$149,486 Total: \$149,486
Prin. Invest.: D GLOBUS
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 812 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO **2850**
EXPANSION AND DIFFERENTIATION OF CELLS
 09/19/1995 - 06/30/1998 FY98: \$0 Total: \$540,000
Prin. Invest.: B BHATNAGAR
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 4386 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO **2851**
MOLECULAR ANALYSIS OF HZE DAMAGE IN TRANSGENIC MICE
 04/14/1995 - 11/30/1997 FY98: \$0 Total: \$269,945
Prin. Invest.: M BANDA
Tech. Officer: HQ/V THORNE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAS 9 18769 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO **2852**
SLS-3 FLIGHT EXPERIMENT
 10/20/1992 - 12/31/1997 FY98: \$0 Total: \$971,550
Prin. Invest.: C CANN
Tech. Officer: SC/V ELLERBE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 9 19411 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO **2853**
CREW MEMBER & CREW GROUND INTERACTIONS DURING NASA/ MIR
 09/22/1995 - 10/30/1999 FY98: \$169,000 Total: \$455,000
Prin. Invest.: J KANAS, NONE
Tech. Officer: JSC/J VILLARREAL
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 589 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO **2854**
GRAVITY AND SKELETAL GROWTH
 03/15/1989 - 12/31/1998 FY98: \$0 Total: \$1,822,246
Prin. Invest.: E M HOLTON
Tech. Officer: ARC/S B ARNAUD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

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| NCC 2 772 UNIVERSITY OF CALIFORNIA – SAN FRANCISCO 2855 MOLECULAR SELF-ORGANIZATION & THE ORIGIN OF LIFE: FORMATION & FUNCTIONS OF PROTOCELLS 10/16/1992 – 09/30/1998 FY98: \$0 Total: \$660,308 <i>Prin. Invest.:</i> M A WILSON <i>Tech. Officer:</i> ARC/M L FONDA <i>CASE Category:</i> 12 – CHEMISTRY | NAG 3 1847 UNIVERSITY OF CALIFORNIA – SANTA BARBARA 2863 THE SUPERFLUID TRANSITION OF HE4 UNDER UNUSUAL CONDITIONS 05/02/1996 – 05/01/2000 FY98: \$210,000 Total: \$474,000 <i>Prin. Invest.:</i> P AHLERS <i>Tech. Officer:</i> LERC/B S SINGH <i>CASE Category:</i> 13 – PHYSICS |
| NCC 2 993 UNIVERSITY OF CALIFORNIA – SAN FRANCISCO 2856 EVOLUTIONARY CELL COMPUTING 05/16/1997 – 12/31/1998 FY98: \$68,540 Total: \$115,455 <i>Prin. Invest.:</i> M A WILSON <i>Tech. Officer:</i> ARC/M H NEW, ARC/S CHANG <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER | NAG 3 1857 UNIVERSITY OF CALIFORNIA – SANTA BARBARA 2864 NUMERICAL SIMULATION OF ELECTROCHEMICAL TRANSPORT PROCESS IN MICROGRAVITY ENVIRONMENTS 05/06/1996 – 05/05/2000 FY98: \$53,000 Total: \$187,000 <i>Prin. Invest.:</i> S BAMERJEE <i>Tech. Officer:</i> LERC/J C DUH <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER |
| NCC 2 1009 UNIVERSITY OF CALIFORNIA – SAN FRANCISCO 2857 IMMUNOGENETICS OF THE ELEPHANT SEAL (JOHN C GARZA) 12/08/1997 – 11/14/1998 FY98: \$25,000 Total: \$25,000 <i>Prin. Invest.:</i> N FREIMER, J C GARZA <i>Tech. Officer:</i> ARC/C E WADE <i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR) | NAG 3 1896 UNIVERSITY OF CALIFORNIA – SANTA BARBARA 2865 THE BREAK-UP AND COALESCENCE OF GAS BUBBLES DRIVEN BY VELOCITY GRADIENTS OF A NON-UNIFORM FLOW 06/17/1996 – 06/16/1998 FY98: \$0 Total: \$140,000 <i>Prin. Invest.:</i> L LEAL <i>Tech. Officer:</i> LERC/B S SINGH <i>CASE Category:</i> 43 – CHEMICAL ENGR |
| NCC 2 5147 UNIVERSITY OF CALIFORNIA – SAN FRANCISCO 2858 COMPUTER MODELING OF THE THERMAL CONDUCTIVITY OF COMETARY ICE 07/19/1995 – 04/30/1998 FY98: \$0 Total: \$79,806 <i>Prin. Invest.:</i> D A WILSON <i>Tech. Officer:</i> ARC/T E BUNCH, ARC/D F BLAKE <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER | NAG 3 2115 UNIVERSITY OF CALIFORNIA – SANTA BARBARA 2866 INTERACTION FORCES AND THE FLOW-INDUCED COALESCENCE OF DROPS AND BUBBLES 02/19/1998 – 01/07/2002 FY98: \$125,000 Total: \$125,000 <i>Prin. Invest.:</i> L G LEAL <i>Tech. Officer:</i> LERC/B S SINGH <i>CASE Category:</i> 43 – CHEMICAL ENGR |
| NCC 2 5294 UNIVERSITY OF CALIFORNIA – SAN FRANCISCO 2859 MOLECULAR MODELING IN BIO-NANOTECHNOLOGY: COMPUTER AIDED GENETIC ENGINEERING OF A PROTEIN-BASED .. 09/21/1998 – 12/31/1998 FY98: \$16,000 Total: \$16,000 <i>Prin. Invest.:</i> M A WILSON <i>Tech. Officer:</i> ARC/J D DOWNIE, ARC/R L JAFFE <i>CASE Category:</i> 12 – CHEMISTRY | NAG 3 2119 UNIVERSITY OF CALIFORNIA – SANTA BARBARA 2867 POOL BOILING CURVES FROM FLAT PLATES: MECHANISMS AND ENHANCEMENT 02/26/1998 – 09/30/2001 FY98: \$148,000 Total: \$148,000 <i>Prin. Invest.:</i> T G THEOFANOUS, Y BUYEVIAH <i>Tech. Officer:</i> LERC/J B MCQUILLEN <i>CASE Category:</i> 49 – ENGINEERING, OTHER |
| NCC 2 5295 UNIVERSITY OF CALIFORNIA – SAN FRANCISCO 2860 TOWARDS A PHYLOGENY OF BIOLOGICAL FUNCTIONS 09/25/1998 – 02/28/1999 FY98: \$29,500 Total: \$29,500 <i>Prin. Invest.:</i> M A WILSON <i>Tech. Officer:</i> ARC/M H NEW, ARC/M L FONDA <i>CASE Category:</i> 59 – LIFE SCIENCE, OTHER | NAG 3 2145 UNIVERSITY OF CALIFORNIA – SANTA BARBARA 2868 THE FIRST ANNUAL MEETING OF THE INSTITUTE OF MULTI FLUID SCIENCE AND TECHNOLOGY 03/30/1998 – 01/26/1999 FY98: \$10,000 Total: \$10,000 <i>Prin. Invest.:</i> T G THEOFANOUS <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> LERC/B S SINGH <i>CASE Category:</i> 49 – ENGINEERING, OTHER |
| NAG 2 1140 UNIVERSITY OF CALIFORNIA – SANTA BARBARA 2861 MODELING & PREDICTION OF WILDFIRE HAZARD IN SOUTHERN CALIFORNIA, INTEGRATION OF MODELS WITH..... 07/21/1997 – 06/30/1999 FY98: \$75,000 Total: \$150,000 <i>Prin. Invest.:</i> D A ROBERTS, S L USTIN, R CHURCH <i>Tech. Officer:</i> ARC/G A SHELTON, ARC/J A BRASS <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER | NAG 4 135 UNIVERSITY OF CALIFORNIA – SANTA BARBARA 2869 ACTIVE VIBRATION CONTROL OF FLEXIBLE STRUCTURES USING PIEZOELECTRIC ACTUATORS 06/30/1997 – 06/30/1998 FY98: \$0 Total: \$23,986 <i>Prin. Invest.:</i> J C BRUCH, JR., J M SLOSS <i>Tech. Officer:</i> DFRC/K GUPTA <i>CASE Category:</i> 41 – AERONAUTICAL ENGR |
| NAG 2 1148 UNIVERSITY OF CALIFORNIA – SANTA BARBARA 2862 CHARACTERIZATION OF LIGHT WEIGHT CERAMIC ABLATOR MATERIALS 07/30/1997 – 06/30/1998 FY98: \$0 Total: \$42,121 <i>Prin. Invest.:</i> F MILSTEIN <i>Tech. Officer:</i> ARC/H TRAN <i>CASE Category:</i> 47 – METAL & MATERIALS ENGR | NAG 5 3024 UNIVERSITY OF CALIFORNIA – SANTA BARBARA 2870 TOPOGRAPHIC EVOLUTION OF VOLCANIC ISLAND 10/11/1995 – 01/31/1999 FY98: \$132,824 Total: \$381,332 <i>Prin. Invest.:</i> O A CHADWICK <i>Tech. Officer:</i> GSFC/H V FREY <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE |

NAG 5 3334 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2871**
SEARCH FOR CO ABSORPTION IN THE CYGNUS A TORUS
 08/09/1996 - 08/14/1998 FY98: \$0 Total: \$61,200
Prin. Invest.: R J ANTONUCCI
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3620 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2872**
"REMOTE SENSING INFORMATION SCIENCES RESEARCH GROU
 02/07/1997 - 12/14/1999 FY98: \$999,900 Total: \$1,499,885
Prin. Invest.: D E ESTES, NONE
Tech. Officer: GSFC/A J TUYOHVO
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3646 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2873**
SOLAR SYSTEM PHYSICS
 02/25/1997 - 04/30/1999 FY98: \$0 Total: \$85,000
Prin. Invest.: S J PEALE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3814 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2874**
DEVELOPMENT AND CRYOGENIC TESTING OF MICROWAVE RAD ARCADE PROJECT.
 01/14/1997 - 01/14/1998 FY98: \$0 Total: \$15,000
Prin. Invest.: P LUBIN
Tech. Officer: GSFC/R A SHAFER
CASE Category: 11 - ASTRONOMY

NAG 5 4078 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2875**
ADVANCED BALLOONING STUDIES AND TECHNOLOGY DEVELOP
 04/25/1997 - 10/31/1998 FY98: \$310,000 Total: \$510,000
Prin. Invest.: P M LUBIN
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4126 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2876**
SPATIAL AND TEMPORAL VARIABILITY IN SEA ICE COVERA ANTARCTIC PENINSULA ASPART OF THE PALMER LONG TE
 03/06/1997 - 12/31/1998 FY98: \$38,053 Total: \$63,121
Prin. Invest.: R C SMITH
Tech. Officer: GSFC/R H THOMAS
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4185 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2877**
DEVELOPMENT OF LARGE COOLED HEMT ARRAYS FOR BALLOO OF COSMIC BACKGROUND RADIATION ANISOTROPIES
 03/24/1997 - 11/30/1998 FY98: \$139,751 Total: \$268,903
Prin. Invest.: M MEINHOLD
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4455 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2878**
BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF TH BACK-GROUND ON ANGULAR SCALES OF 0.2 TO 40 DEGREES
 06/05/1997 - 12/31/1998 FY98: \$34,130 Total: \$73,648
Prin. Invest.: D E RUHL
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4460 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2879**
NON-MARINE S ROMATOLITES AND THE SEARCH FOR PAST L
 05/14/1997 - 06/30/1999 FY98: \$35,730 Total: \$70,730
Prin. Invest.: D M WRAMIK
Tech. Officer: GSFC/M MEYER
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4629 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2880**
PARAMETERIZATION OF CLOUD 3-D EFFECTS ON SURFACE S GET ESTI-MATED FROM SATELLITE MEASUREMENTS
 05/21/1997 - 05/31/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: C GAUTHIER
Tech. Officer: GSFC/R CAHALAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4814 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2881**
HYDROLOGY, HYDROCHEMICAL MODELING AND REMOTE SENS SNOW-COVERED ALPINE DRAINAGE BASINS
 06/19/1997 - 07/31/1999 FY98: \$885,985 Total: \$1,684,535
Prin. Invest.: J C JOZIER
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4963 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2882**
PROGRAM IS PART OF A LONG TERM EFFORT ICESS IS DEV RGRADUATE STUDENTS, EAHLY ON IN THEIR ACADEMIC LI
 06/27/1997 - 06/30/1999 FY98: \$75,000 Total: \$150,000
Prin. Invest.: C GAUTIER
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6120 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2883**
THE EOS AMAZON PROJECT
 08/13/1997 - 06/30/1999 FY98: \$207,798 Total: \$415,596
Prin. Invest.: T D JNNE
Tech. Officer: GSFC/T JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6226 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2884**
JERS AMAZON MULTI-SEASON MAPPING STUDY (JAMMS)
 09/11/1997 - 05/31/1999 FY98: \$0 Total: \$87,954
Prin. Invest.: J MELACK
Tech. Officer: GSFC/D WICKLAND
CASE Category: 11 - ASTRONOMY

NAG 5 6259 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2885**
ACCURACY ASSESSMENT OF THE IGBP FAST-TRACK 1 KM LA METH-ODOLOGICAL DEVELOPMENT, EXECUTION, AND LESSON
 08/19/1997 - 07/31/1999 FY98: \$70,000 Total: \$330,000
Prin. Invest.: J ESTES
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6288 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2886**
DEVELOPMENT AND APPLICATION OF THE NEXT GENERATION FOR THE UNDERSTANDING OF MARINE PROCESSES ON REGI
 09/10/1997 - 08/31/1999 FY98: \$191,063 Total: \$381,063
Prin. Invest.: D HEGEL
Tech. Officer: GSFC/J YODER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6434 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2887**
BIO-OPTICS IN THE WESTERN ANTARCTIC PENINSULA REGION
 10/16/1997 – 09/30/1998 FY98: \$150,000 Total: \$150,000
Prin. Invest.: R SMITH
Tech. Officer: GSFC/J YODER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6465 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2888**
INVESTIGATION OF SNOW PROPERTIES USING MODIS AND A STER DATA
 10/24/1997 – 09/30/1999 FY98: \$210,055 Total: \$210,055
Prin. Invest.: J SHI
Tech. Officer: GSFC/D STARR
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 6478 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2889**
INFRASTRUCTURE FOR TRAINING AND PARTNERSHIPS–CALIFORNIA WATER AND COASTAL OCEAN RESOURCES
 11/18/1997 – 09/30/1998 FY98: \$395,480 Total: \$395,480
Prin. Invest.: D SIEGEL, NONE
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6911 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2890**
A REQUEST FOR SCIENCE READINESS FUNDS FOR THE OPTICAL MONITOR PROGRAM OF THE X-RAY MULTI-MIRROR MISS
 01/28/1998 – 01/31/1999 FY98: \$108,132 Total: \$108,132
Prin. Invest.: D CORDOVA
Tech. Officer: GSFC/R DONNELLY
CASE Category: 11 – ASTRONOMY

NAG 5 7048 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2891**
A STUDY OF THE EUV/X-RAY CORRELATION IN NGC 4151 WITH EUVE AND XTE
 02/19/1998 – 12/31/1998 FY98: \$11,840 Total: \$11,840
Prin. Invest.: O M BLAES
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 7075 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2892**
DETAILED THEORETICAL MODELING OF THE SPECTRUM AND POLARIZATION OF ACCRETION DISKS IN ACTIVE GALAXIES
 02/25/1998 – 02/28/1999 FY98: \$67,861 Total: \$67,861
Prin. Invest.: O M BLAES
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7125 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2893**
XTE PROPOSAL – THE NATURE OF THE BROAD-BAND CONTINUUM OF NGC 5548 FROM EUVE, ASCA, AND XTE
 04/24/1998 – 03/31/1999 FY98: \$9,688 Total: \$9,688
Prin. Invest.: O M BLAES
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7177 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2894**
PROBABILITY OF DETECTING PLANETS WITH MICROLENSING
 03/16/1998 – 03/14/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: S J PEALE
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7248 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2895**
SIMPLE AND MULTIPLE ENDMEMBER SPECTRAL MIXTURE ANALYSIS IN THE BOREAL FOREST
 04/24/1998 – 06/30/1999 FY98: \$20,000 Total: \$20,000
Prin. Invest.: D A ROBERTS
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7273 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2896**
XTE PROPOSAL – THE VELA PULSAR: ARE X-RAY & RADIO PULSE PROPERTIES CORRELATED?
 04/24/1998 – 04/30/1999 FY98: \$1,000 Total: \$1,000
Prin. Invest.: C GWINN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 8 1429 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2897**
R/S BOUNDARY EFFECTS ON TRANSPORT PROPERTIES AND DYNAMIC FINITE-SIZE SCALING NEAR THE SUPERFLUID
 02/23/1998 – 01/31/2002 FY98: \$127,999 Total: \$127,999
Prin. Invest.: G AHLERS, V DOHM, F C LIU
Tech. Officer: MSFC/J POE, JPL/D STRAYER
CASE Category: 13 – PHYSICS

NAG 9 1032 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2898**
VALIDATION OF LARGE SCALE LAND USE MAPS
 06/23/1998 – 12/31/1998 FY98: \$20,000 Total: \$20,000
Prin. Invest.: J E ESTES
Tech. Officer: JSC/K P LULLA
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 290 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2899**
SHIP & SATELLITE BIO-OPTICAL RESEARCH IN THE CALIFORNIA BIGHT
 02/01/1982 – 07/31/1998 FY98: \$0 Total: \$3,706,840
Prin. Invest.: R C SMITH, K S BAKER
Tech. Officer: HQ/M R LEWIS, HQ/W S WILSON
CASE Category: 33 – OCEANOGRAPHY

NAGW 1062 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2900**
ADVANCED RADIOMETER DEVELOPMENT
 07/01/1987 – 06/30/1997 FY98: \$0 Total: \$1,383,205
Prin. Invest.: P M LUBIN
Tech. Officer: HQ/F C GILLET, HQ/E J WEILER
CASE Category: 11 – ASTRONOMY

NAGW 1743 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2901**
REMOTE SENSING INFORMATION SCIENCES RESEARCH GROUP
 05/16/1989 – 04/30/1997 FY98: \$0 Total: \$5,995,427
Prin. Invest.: J E ESTES, T R SMITH, J L STAR
Tech. Officer: HQ/A J TUYAHOV
CASE Category: 99 – MULTIDISCIPLINARY, OTHER

NAGW 2061 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2902**
SOLAR SYSTEM PHYSICS
 04/10/1990 – 09/30/1997 FY98: \$85,000 Total: \$539,200
Prin. Invest.: S J PEALE
Tech. Officer: HQ/T A MAXWELL
CASE Category: 13 – PHYSICS

NAGW 2602 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2903**
HYDROLOGY, HYDROCHEMICAL MODELING, AND REMOTE SENSING IN SEASONALLY SNOW-COVERED ALPINE DRAINAGE
 08/06/1991 – 09/30/1997 FY98: \$0 Total: \$3,999,221
Prin. Invest.: J DOZIER
Tech. Officer: HQ/G ASRAR, HQ/W S WILSON
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 2840 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2904**
NONLINEAR DROP DYNAMICS AND CHAOTIC PHENOMENA
 01/17/1992 – 11/30/1997 FY98: -\$220 Total: \$294,780
Prin. Invest.: L G LEAL
Tech. Officer: HQ/B M CARPENTER
CASE Category: 13 – PHYSICS

NAGW 3145 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2905**
SOLAR RADIATION PENETRATION, MODELING GLOBAL OCEAN CLIMATE AND SATELLITE OCEAN COLOR IMAGERY
 08/11/1992 – 01/31/1998 FY98: \$0 Total: \$811,300
Prin. Invest.: D A SIEGEL
Tech. Officer: HQ/R E MURPHY, HQ/J A KAYE
CASE Category: 33 – OCEANOGRAPHY

NAGW 3350 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2906**
GEOPHYSICAL MODELING AND ANALYSIS OF SATELLITE ALTIMETRY GRAVITY AND MAGNETIC DATA
 01/15/1993 – 12/31/1996 FY98: \$0 Total: \$298,225
Prin. Invest.: P M LUBIN, A J ANDERSON
Tech. Officer: HQ/R E MURPHY, HQ/B CHAO
CASE Category: 13 – PHYSICS

NAGW 3888 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2907**
UNIV CALIF SANTA BARBARA; IMPLEMENTING & APPLYING A MODELING & DATABASE SYSTEM IN SUPPORT OF EOS
 03/03/1994 – 09/30/1997 FY98: \$0 Total: \$992,215
Prin. Invest.: T R SMITH
Tech. Officer: HQ/G H MUCKLOW, HQ/H BREDECAMP
CASE Category: 22 – COMPUTER SCIENCE

NAGW 3951 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2908**
FULLY AUTOMATED REGISTRATION AND COMPOSITE GENERATIONS
 04/25/1994 – 12/31/1997 FY98: \$0 Total: \$418,293
Prin. Invest.:
Tech. Officer: HQ/G H MUCKLOW, HQ/J H BREDECAMP
CASE Category: 22 – COMPUTER SCIENCE

NAGW 4352 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2909**
FLOODPLAIN AND RIVER DYNAMICS IN THREE LARGE SOUTH AMERICAN RIVERS
 03/18/1995 – 01/31/1998 FY98: \$0 Total: \$141,815
Prin. Invest.: J M MELACK, C J WILLMOTT, C J VOROSMARTY
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4921 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2910**
SPATIAL AND TEMPORAL VARIABILITY IN SEA ICE COVERAGE WEST OF THE ANTARCTIC PENINSULA AS PART
 02/08/1996 – 06/30/1997 FY98: -\$277 Total: \$21,937
Prin. Invest.: R C SMITH
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 33 – OCEANOGRAPHY

NAGW 5115 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2911**
JERS AMAZON MULTI-SEASON MAPPING STUDY
 07/02/1996 – 05/15/1998 FY98: \$0 Total: \$121,092
Prin. Invest.: J M MELACK, A FREEMAN, A ROSENQUIST
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 33 – ENVIRONMENTAL SCI, OTHER

NAGW 5185 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2912**
HYDROLOGY, HYDROCHEMICAL MODELING
 09/03/1996 – 07/31/1998 FY98: \$0 Total: \$720,000
Prin. Invest.: J DOZIER
Tech. Officer: HQ/R E ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 5222 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2913**
OCEAN MEASUREMENTS FROM MOORINGS IN SUPPORT OF SEA WIFS
 10/04/1996 – 03/31/1998 FY98: \$0 Total: \$150,000
Prin. Invest.: T D DICKEY
Tech. Officer: HQ/R J MAYNARD, HQ/R C HARRISS
CASE Category: 33 – OCEANOGRAPHY

NAGW 5233 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2914**
THE REGIONAL AMAZON MODEL
 09/30/1996 – 06/30/1998 FY98: \$0 Total: \$181,537
Prin. Invest.: T D L NNE
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 5241 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2915**
USING LANDSAT DATA TO DEVELOP AN IMAGE BASED LOGISTIC REGRESSION MODEL FOR PREDICTING DEFORESTATION
 11/25/1996 – 06/30/1998 FY98: \$0 Total: \$205,551
Prin. Invest.: R C FROHN
Tech. Officer: HQ/A ASRAR, HQ/R C HARRISS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAS 5 31370 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2916**
EOS INVESTIGATION
 12/23/1991 – 12/31/2001 FY98: \$487,000 Total: \$2,696,402
Prin. Invest.: Z W WILSON
Tech. Officer: GS/C/H OSEROFF
CASE Category: 33 – OCEANOGRAPHY

NAS 5 31374 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2917**
EOS INVESTIGATION – ATMOSPHERIC INFRARED SOUNDER (AIRS) TEAM MEMBER INVESTIGATION
 03/04/1992 – 12/31/2001 FY98: \$170,000 Total: \$1,140,000
Prin. Invest.: C G AUTIER
Tech. Officer: GS/C/E KRIENS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAS 5 97119 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2918**
MANAGE DEVELOPMENT OF X-RAY MULTI-MIRROR MISSION DATA PROCESSING UNIT
 01/22/1997 – 09/30/1998 FY98: \$442,000 Total: \$749,000
Prin. Invest.: F A COROGVA
Tech. Officer: GS/C/R E DONNELL
CASE Category: 11 – ASTRONOMY

NAS 5 97125 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2919**
BERMUDA BIOOPTICS PROGRAM FOR SIMBIOS
 07/11/1997 – 07/10/1999 FY98: \$110,000 Total: \$417,126
Prin. Invest.: D A SIEGEL
Tech. Officer: GSFC/C MCCLAIN
CASE Category: 33 – OCEANOGRAPHY

NAS 5 97127 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2920**
BERMUDA TESTBED MOORING IN SUPPORT OF SIMBIDS
 07/15/1997 – 07/14/1999 FY98: \$66,000 Total: \$233,640
Prin. Invest.: T D DICKEY
Tech. Officer: GSFC/C MCCLAIN
CASE Category: 33 – OCEANOGRAPHY

NAS 5 97146 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2921**
EOS – IDS ATMOSPHERE – BIOSPHERE
 05/21/1997 – 05/20/2000 FY98: \$0 Total: \$90,000
Prin. Invest.: A S DENNING
Tech. Officer: GSFC/G COLLATZ
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 2 63 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2922**
INVESTIGATE EFFECT OF SURFACE IMPURITIES ADSORPTION KINETICS OF HYDROGEN CHEMISORBED IRON
 04/01/1980 – 09/30/1997 FY98: \$545 Total: \$1,453,862
Prin. Invest.: M R SHANABARGER
Tech. Officer: ARC/T L PANONTI
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 2 1049 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2923**
CHARACTERIZATION OF LIGHTWEIGHT CERAMIC ABLATOR MATERIALS
 07/16/1998 – 06/30/1999 FY98: \$76,495 Total: \$76,495
Prin. Invest.: F MILSTEIN
Tech. Officer: ARC/H K TRAN
CASE Category: 49 – ENGINEERING, OTHER

NCC 3 551 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2924**
SPATIAL CROSS-CORRELATION IN BACK SCATTER
 04/08/1997 – 03/31/1999 FY98: \$0 Total: \$49,200
Prin. Invest.: D S CANNELL
Tech. Officer: LERC/T K GLASGOW, LERC/W MEYER
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NCC 5 281 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2925**
MULTI-SCALE ANALYSIS OF INUNDATION WITH MICROWAVE AND OPTICAL REMOTESENSING IN THE AMAZON BASIN:
 06/16/1998 – 12/31/1998 FY98: \$105,273 Total: \$105,273
Prin. Invest.: J MELACK
Tech. Officer: GSFC/D DEERING
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 5 282 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2926**
LAND-COVER CONVERSION IN AMAZONIA, THE ROLE OF ENVIRONMENT AND SUBSTRATE COMPOSITION IN MODIFYING SO
 06/12/1998 – 03/31/1999 FY98: \$86,455 Total: \$86,455
Prin. Invest.: O A CHADWICK
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 5 302 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2927**
THE EARTH SYSTEM SCIENCE WORKBENCH: A SCALABLE INFRASTRUCTURE FOR ESIP'S
 04/09/1998 – 02/28/2001 FY98: \$625,000 Total: \$625,000
Prin. Invest.: J FREW
Tech. Officer: GSFC/M MAIDEN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 30267 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2928**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/20/1994 – 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: J M MELACK
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30357 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2929**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/04/1996 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: T DUNNE
Tech. Officer: HQ/G ASRAR
CASE Category: 32 – GEOLOGICAL SCIENCE

NGT 51264 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2930**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/14/1994 – 06/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: G AHLERS
Tech. Officer: HQ/G LESANE
CASE Category: 13 – PHYSICS

NGT 51381 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2931**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/15/1995 – 06/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: P LUBIN
Tech. Officer: HQ/D A HOLLAND
CASE Category: 13 – PHYSICS

NGT 3 52317 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2932**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/05/1996 – 11/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: S BANERJEE
Tech. Officer: LERC/D MONTEGANI
CASE Category: 43 – CHEMICAL ENGR

NGT 4 52407 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2933**
GSRP ANALYSIS OF ADAPTIVE CONTROL OF AEROELASTIC STRUCTURES USING MULTIDISCIPLINARY STARS PROGRAMS
 06/18/1998 – 07/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J C BRUCH, DR., J TARANTINO
Tech. Officer: SSC/K GUPTA, SSC/L S VOELKER
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 30050 UNIVERSITY OF CALIFORNIA – SANTA BARBARA **2934**
SEDIMENT EVACUATION FROM THE NORTH CENTRAL ANDES A GLOBAL CHANGE ON MOUNTAIN RANGE EROSION
 09/16/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: T DUNNE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30063 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2935**
BIO-OPTICAL ANALYSIS OF PRIMARY PRODUCTIVITY AND G CHANGE IN
ANTARCTIC COASTAL WATERS
 09/10/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: R SMITH
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30070 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2936**
THE EFFECTS OF REMOTELY SENSED DATA ON MODELED LAND INTERAC-
TIONS: CONSEQUENCES FOR GLOBAL CARBON BALANCE
 09/10/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: S DENNING, PRIHODK
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30104 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2937**
INVESTIGATIONS OF COASTAL MARINE COMMUNITIES AS A MEANS TO
UNDERSTANDING CONTEMPORARY EFFECTS OF GLOBAL WARMING
 09/26/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: S SCHMIDT
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30173 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2938**
MASS BALANCE OF SEDIMENT TRANSPORT ACROSS COASTAL MARGIN
FILTERS AT THE BASE OF THE TRANSVERSE RANGE
 09/22/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: MERTES, WARRICK
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50010 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2939**
ESTIMATION OF HUMAN POPULATION PARAMETERS WITH HIGH-RESOLUTION
GIS
 12/23/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: D ROBERTS
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50127 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2940**
MAPPING THE COSMIC MICROWAVE BACKGROUND RADIATION
 09/09/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: P LUBIN
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50192 UNIVERSITY OF CALIFORNIA - SANTA BARBARA **2941**
MEASUREMENT OF CMB ANISOTROPIES FOR DETERMINATION OF COS-
MOLOGICAL PARAMETERS
 06/05/1998 - 06/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: P LUBIN
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 13 - PHYSICS

NAG 2 991 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2942**
TOOLS FOR ANALYSIS & VISUALIZATION OF LARGE TIME-VARYING CFD
DATA SETS
 07/25/1995 - 07/31/1999 FY98: \$0 Total: \$300,000
Prin. Invest.: J WILHELMS, A VAN GELDER
Tech. Officer: ARC/A VAZIRI, ARC/M G YAMASAKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1118 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2943**
DE NOVO DESIGN OF NANOTECHNOLOGY COMPONENTS
 02/21/1997 - 12/31/1997 FY98: \$0 Total: \$99,876
Prin. Invest.: W T VIKKE
Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY
CASE Category: 19 - MULTI INTERDISCIPL, OTHER

NAG 2 1239 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2944**
ACCELERATED TIME-VARYING FLOW VISUALIZATION WITH FLOW FEATURE
PRESERVATION
 07/17/1998 - 07/31/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: A VAN GELDER, J WILHELMS
Tech. Officer: ARC/A VAZIRI, ARC/M GERALD-YAMASAKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2843 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2945**
RADIATION TRANSPORT AND MULTIDIMENSIONAL HYDRODYNAMICS IN
SUPERNOVAE
 12/14/1994 - 09/30/1998 FY98: \$0 Total: \$216,000
Prin. Invest.: S E WOOSLEY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2984 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2946**
MOUNTAIN SCALE EROSION AND THE POTENTIAL FOR EROSIONALLY
DRIVEN UPLIFT
 07/07/1995 - 07/31/1999 FY98: \$34,400 Total: \$100,411
Prin. Invest.: R S ANDERSON
Tech. Officer: GSFC/H V FREY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3005 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2947**
ZCAPE: A COUPLED TECTONIC-GEOMORPHIC LANDSCAPE EVOLUTION
MODEL
 07/14/1995 - 07/31/1999 FY98: \$0 Total: \$127,000
Prin. Invest.: R S ANDERSON
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3059 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2948**
DYNAMICAL PROCESSES AROUND MASSIVE BLACK HOLES IN GALACTIC
NUCLEI
 10/02/1995 - 09/14/1998 FY98: \$0 Total: \$120,000
Prin. Invest.: D P LIN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3060 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2949**
INTERSTELLAR GAS AND DUST IN ELLIPTICAL GALAXIES
 09/15/1995 - 04/14/1999 FY98: \$0 Total: \$177,000
Prin. Invest.: W J MATTHEWS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3061 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2950**
TESTING INFLATION AND DARK MATTER WITH MATTER WITH NEW DATA,
MODELS AND METHODS
 09/06/1995 - 01/14/1998 FY98: \$0 Total: \$330,000
Prin. Invest.: J F PRIMACK
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3232 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2951**
THE PROPERTIES OF INTERSTELLAR DUST GRAINS IN CIRRUS CLOUDS
 05/08/1996 – 04/30/1999 FY98: \$87,200 Total: \$245,895
Prin. Invest.: P GUHATHAKURTA
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3434 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2952**
PRODUCTION DISTRIBUTION AND EVOLUTION OF RADIOACTIVE NUCLEI.
 10/01/1996 – 09/30/1997 FY98: \$0 Total: \$54,974
Prin. Invest.: S WOOSLEY, F X TIMMES
Tech. Officer: GSFC/J NORRIS, GSFC/N GEHRELS
CASE Category: 11 – ASTRONOMY

NAG 5 3501 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2953**
A STUDY OF DUST IN AND AROUND GALAXIES
 11/25/1996 – 11/14/1998 FY98: \$75,000 Total: \$164,000
Prin. Invest.: D F ZARITSKY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3507 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2954**
ISO DEEP SURVEY
 10/31/1996 – 11/14/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: D C KOO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3820 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2955**
ORIGIN OF QUASAR ABSORPTION LINES IN A COSMOLOGICAL
 01/14/1997 – 01/14/1999 FY98: \$40,000 Total: \$80,000
Prin. Invest.: L E HERNQUIST
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4277 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2956**
FORMATION OF GIANT PLANETS
 04/01/1997 – 12/31/1998 FY98: \$37,500 Total: \$82,500
Prin. Invest.: D LIN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4445 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2957**
PHOTON-WEIGHTED MIDPOINT EXPOSURE METER FOR KECK/H
RESEARCH
 04/25/1997 – 04/30/1999 FY98: \$23,768 Total: \$132,752
Prin. Invest.: D S VOGT
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4494 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2958**
FORMATION AND EARLY EVOLUTION OF SOLAR AND EXTRA-S
 04/30/1997 – 03/31/1999 FY98: \$12,533 Total: \$50,109
Prin. Invest.: D H BODENHEIMER
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4610 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2959**
MAJOR UNRESOLVED PROBLEMS IN FU ORIONIS SYSTEMS
 05/20/1997 – 05/31/1999 FY98: \$20,833 Total: \$70,833
Prin. Invest.: D H BODENHEIMER
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4665 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2960**
STRUCTURE AND FUNCTION OF ENCAPSULATED REPLICATING
 06/05/1997 – 12/31/1999 FY98: \$91,232 Total: \$200,711
Prin. Invest.: D DEAMER
Tech. Officer: GSFC/M MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 4866 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2961**
CLUSTERS OF GALAXIES IN A NEW LIGHT: THE FIRST HIGH RESOLUTION
 06/27/1997 – 01/31/1999 FY98: \$0 Total: \$9,391
Prin. Invest.: A ZABLUDOFF
Tech. Officer: GSFC/R PETRE
CASE Category: 12 – CHEMISTRY

NAG 5 6771 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2962**
THE EVOLUTION OF ISOLATED ELLIPTICAL GALAXIES
 01/21/1998 – 02/01/1999 FY98: \$16,300 Total: \$16,300
Prin. Invest.: A ZABLUDOFF
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 7245 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2963**
GEOPHYSICS OF SMALL PLANETARY BODIES
 04/15/1998 – 10/14/1999 FY98: \$50,400 Total: \$50,400
Prin. Invest.: E ASPHAUG
Tech. Officer: GSFC/P ROGERS
CASE Category: 11 – ASTRONOMY

NAG 5 7515 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2964**
TIDALLY DRIVEN G-MODE OSCILLATION IN SOLAR-TYPE STARS BY
CLOSEPLANETARY COMPANIONS
 05/29/1998 – 05/31/1999 FY98: \$41,667 Total: \$41,667
Prin. Invest.: D LIN
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAGW 4213 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2965**
NUMERICAL STUDY OF THE BERKNER SHELF POLYNIA
 12/20/1994 – 09/30/1996 FY98: -\$47 Total: \$79,953
Prin. Invest.: D VALLIS
Tech. Officer: HQ/J S THEON
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NAGW 4830 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2966**
COMPARISON OF LICK NORTHERN PROPER MOTION PROGRAM AND HIP-
PARCOS REFERENCE FRAMES
 10/10/1995 – 09/30/1996 FY98: -\$51 Total: \$34,084
Prin. Invest.: D KLEMOLA
Tech. Officer: HQ/R A STACHNIK
CASE Category: 11 – ASTRONOMY

NAGW 5033 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2967**
RADIATIVE EFFECTS OF CONSTRAINTS AND CIRRUS CLOUDS DURING SUCCESS: A PROPOSAL IN SUPPORT OF AVIATIO
 04/24/1996 - 01/31/1997 FY98: \$0 Total: \$204,187
Prin. Invest.: F J VALERO
Tech. Officer: HQ/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 534 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2968**
TOWARDS A SELF REPLICATING CHEMICAL SYSTEM BASED OCYTIDYLIC AND GUANYLIC ACIDS
 01/15/1988 - 01/14/1999 FY98: \$99,840 Total: \$905,177
Prin. Invest.: A KANAVARIOTI, C F BERNASCONI
Tech. Officer: ARC/M L FONDA
CASE Category: 12 - CHEMISTRY

NCC 2 649 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2969**
THEORETICAL AND OBSERVATIONAL STUDIES OF STAR AND PLANET FORMATION AND PRECURSOR SCIENCE FOR SIRT
 10/16/1989 - 12/31/1998 FY98: \$100,426 Total: \$2,251,584
Prin. Invest.: P H BODENHEIMER
Tech. Officer: ARC/D J HOLLENBACH, ARC/M W WERNER
CASE Category: 11 - ASTRONOMY

NCC 2 928 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2970**
LIVING IN SPACE OR LOW GRAVITY ENVIRONMENTS
 09/12/1995 - 08/31/1998 FY98: \$0 Total: \$45,016
Prin. Invest.: B BRIDGEMAN
Tech. Officer: ARC/R B WELCH
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 1003 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2971**
DUAL ADAPTATION & ADAPTIVE GENERALIZATION TO REARRANGED VISUAL ENVIRONMENTS & ADAPTIVE PERFORMANCE.
 08/07/1997 - 08/31/1999 FY98: \$15,000 Total: \$20,000
Prin. Invest.: B BRIDGEMAN
Tech. Officer: ARC/R B WELCH
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 1037 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2972**
(NAS) AMES EDUCATION ASSOCIATES PROGRAM
 05/08/1998 - 01/31/1999 FY98: \$429,082 Total: \$429,082
Prin. Invest.: D L STANSBURY
Tech. Officer: ARC/Q J HANSEN, ARC/S S LONGSCHAMPS
CASE Category: 99 - MULTI INTERDISCIPL., OTHER

NCC 2 5143 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2973**
AMPLIFICATION OF ARCHAEBACTERIAL PROTON-ATPASE GENES
 06/30/1995 - 07/01/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: R A BOGOMOLNI
Tech. Officer: ARC/L I HOCHSTEIN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5207 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2974**
VISUAL METHODS FOR MODEL AND GRID VALIDATION
 03/20/1997 - 09/30/1998 FY98: \$0 Total: \$37,457
Prin. Invest.: A PANG
Tech. Officer: ARC/G D YAMASKI
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5241 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2975**
A NASA-AMES/JCSC INVESTIGATION OF CARBON ISOTOPE ABUNDANCES IN ALH 84001
 09/30/1997 - 08/31/1998 FY98: \$0 Total: \$16,785
Prin. Invest.: G R F U
Tech. Officer: ARC/K J DES MARAIS
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 2 5254 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2976**
PLANETARY RING/MOON SYSTEMS
 02/10/1998 - 10/31/1998 FY98: \$34,000 Total: \$34,000
Prin. Invest.: P B BODENHEIMER, D LIN
Tech. Officer: ARC/J N CUZZI
CASE Category: 11 - ASTRONOMY

NCC 2 5273 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2977**
A SEARCH FOR SUPERNOVA IN STAR-BURST GALAXIES
 06/25/1998 - 05/31/1999 FY98: \$2,880 Total: \$2,880
Prin. Invest.: D M RANK
Tech. Officer: ARC/J D BREGMAN
CASE Category: 11 - ASTRONOMY

NCC 2 5281 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2978**
COMPARATIVE VISUALIZATION OF EXPERIMENTAL WIND TUNNEL DATA & COMPUTATIONAL FLUID DYNAMICS SIMULATION
 07/23/1998 - 06/30/1999 FY98: \$75,812 Total: \$75,812
Prin. Invest.: A PANG
Tech. Officer: ARC/A VAZIRI, ARC/M YAMASAKI
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 5296 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2979**
THE MOLECULAR BASIS OF HYPERTHERMOPHILY
 09/25/1998 - 11/30/1998 FY98: \$10,000 Total: \$10,000
Prin. Invest.: J D TRENT
Tech. Officer: ARC/M L FONDA
CASE Category: 21 - MATHEMATICS

NCC 5 195 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2980**
"DEVELOPMENT OF SILICON-STRIP TRACKER READOUT ELECTRONICS"
 05/30/1997 - 05/11/1999 FY98: \$180,000 Total: \$371,716
Prin. Invest.: D P JOHNSON
Tech. Officer: GS/C M DIJOSEPH
CASE Category: 11 - ASTRONOMY

NGT 2 52217 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2981**
BIRTH OF THE SUN: MAGNETIC FIELDS IN PROTOSTELLAR ACCRETION DISKS
 07/31/1996 - 09/30/1998 FY98: \$22,000 Total: \$66,000
Prin. Invest.: P B BODENHEIMER, N J TURNER
Tech. Officer: ARC/R M CASSEN
CASE Category: 11 - ASTRONOMY

NGT 2 52230 UNIVERSITY OF CALIFORNIA - SANTA CRUZ **2982**
EFFECTS OF WATER IMMERSION (WEIGHTLESSNESS) ON THE REGULATION OF RENAL FUNCTION IN SEALS EXPOSED..
 08/19/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: C L ORTIZ, NONE
Tech. Officer: ARC/C E WADE, ARC/B J CORBIN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 43 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2983**
MULTIWAVELENGTH STUDY OF THE EVOLUTION OF GALAXIES NMENT
 06/23/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: P GUHATHAKURTA
Tech. Officer: GSFC/M S BURRELL
CASE Category: 11 – ASTRONOMY

NGT 5 30074 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2984**
THE EVOLUTION OF STREAM CHANNELS IN A PROGRESSIVE N: THE
FINISTERRE RANGE, PAUA NEW GUINEA
 09/09/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: D SILVER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30112 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2985**
EROSION AND SEDIMENT FLUXES BY VALLEY GLACIERS THROU GH THE
CLIMATECYCLE: LINKS BETWEEN ALPINE
 08/28/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R S ANDERSON
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 90022 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2986**
USAR
 01/02/1997 – 08/14/1997 FY98: \$0 Total: \$10,000
Prin. Invest.: D E KLIGER
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 90077 UNIVERSITY OF CALIFORNIA – SANTA CRUZ **2987**
GRPS: PHYSICAL MECHANISMS FOR LONG-TERM CLIMATE VA
 09/08/1997 – 08/31/2000 FY98: \$22,000 Total: \$44,000
Prin. Invest.: G VALLIS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1120 UNIVERSITY OF SAN DIEGO **2988**
JOVE
 12/21/1994 – 09/30/1998 FY98: \$0 Total: \$70,999
Prin. Invest.: A STURZ, S C GRAY
Tech. Officer: MSFC/F SIX
CASE Category: 33 – OCEANOGRAPHY

NCC 5 308 UNIVERSITY OF SAN DIEGO **2989**
CREATIVE & INNOVATIVE WORKING PHOTOTYPE EARTH SCIENCE INFOR.
PARTNERSHIP IN SUPPORT OF EARTH
 01/15/1998 – 02/14/2001 FY98: \$300,000 Total: \$300,000
Prin. Invest.: J J SIMPSON
Tech. Officer: GSFC/M MAIDEN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4154 UNIVERSITY OF SAN FRANCISCO **2990**
HIGH LET PASSIV SPACE
 09/21/1994 – 09/30/1997 FY98: \$0 Total: \$200,000
Prin. Invest.: E U BENTON
Tech. Officer: HQ/F SULZMAN
CASE Category: 56 – MEDICAL

NCC 2 893 UNIVERSITY OF SAN FRANCISCO **2991**
ENVIRONMENTAL RADIATION MEASUREMENTS ON THE MIR SP ACE STA-
TION
 03/27/1995 – 06/30/1999 FY98: \$149,998 Total: \$601,588
Prin. Invest.: E V BENTON, A L FRANK, R P KEEGAN
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 1 1996 UNIVERSITY OF SOUTHERN CALIFORNIA **2992**
TURBULENCE EFFECTS ON VERY LARGE FLIGHT VEHICLES.
 01/23/1998 – 01/31/1999 FY98: \$65,000 Total: \$65,000
Prin. Invest.: P B LISSAMAN
Tech. Officer: LARC/J R CURZ
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 146 UNIVERSITY OF SOUTHERN CALIFORNIA **2993**
PIONEER 10/11 DATA ANALYSIS OF THE ULTRAVIOLETPHOTOMETRY
EXPERIMENT
 10/01/1981 – 09/30/1997 FY98: \$0 Total: \$2,822,342
Prin. Invest.: D JUDGE
Tech. Officer: ARC/L E LASHER, ARC/J R PHILLIPS
CASE Category: 13 – PHYSICS

NAG 2 864 UNIVERSITY OF SOUTHERN CALIFORNIA **2994**
COORDINATION OF EVOLVING CONVENTIONS ENABLING SHAR ING OF
KNOWLEDGE
 08/06/1993 – 08/31/1999 FY98: \$0 Total: \$1,481,516
Prin. Invest.: S LAU, NONE
Tech. Officer: ARC/P E FRIEDLAND
CASE Category: 22 – COMPUTER SCIENCE

NAG 2 1256 UNIVERSITY OF SOUTHERN CALIFORNIA **2995**
LEARNING & ADAPTATION IN DEXTEROUS ROBOTS
 09/04/1998 – 10/31/1998 FY98: \$31,000 Total: \$31,000
Prin. Invest.: S SCHAAL
Tech. Officer: ARC/C C JORGENSEN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 2 1264 UNIVERSITY OF SOUTHERN CALIFORNIA **2996**
NEUROTECHNOLOGY-BASED MULTI-AGENT/ROBOT RESEARCH
 09/16/1998 – 08/31/1999 FY98: \$18,835 Total: \$18,835
Prin. Invest.: M MATARIC
Tech. Officer: ARC/M H SIMS, ARC/J A SCHREINER
CASE Category: 22 – COMPUTER SCIENCE

NAG 2 6014 UNIVERSITY OF SOUTHERN CALIFORNIA **2997**
INTERACTIVE SPACE BIOLOGY MODULES
 08/04/1997 – 09/30/1997 FY98: -\$4,993 Total: \$45,007
Prin. Invest.: W L WONG
Tech. Officer: ARC/M J LEON
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 3 1523 UNIVERSITY OF SOUTHERN CALIFORNIA **2998**
STUDIES OF PREMIXED LAMINAR AND TURBULENT FLAMES A T
MICROGRAVITY
 09/09/1993 – 01/08/1999 FY98: \$0 Total: \$950,042
Prin. Invest.: P D RONNEY
Tech. Officer: LERC/K J WEILAND
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1611 UNIVERSITY OF SOUTHERN CALIFORNIA **2999**
FLOW AND AMBIENT ATMOSPHERE EFFECTS ON FLAME SPREAD AT MICROGRAVITY
 06/01/1994 - 11/30/1998 FY98: \$38,999 Total: \$325,999
Prin. Invest.: P D RONNEY
Tech. Officer: LERC/S C OLSON, LERC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1615 UNIVERSITY OF SOUTHERN CALIFORNIA **3000**
AERODYNAMICS, UNSTEADY, KINETIC AND HEAT LOSS EFFECTS ON THE DYNAMICS & STRUCTURE OF WEAKLY-BURNING
 06/15/1994 - 12/31/1998 FY98: \$29,956 Total: \$329,956
Prin. Invest.: F N EGOLFOPOULOS
Tech. Officer: LERC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1842 UNIVERSITY OF SOUTHERN CALIFORNIA **3001**
GROUND BASED STUDIES OF INTERNAL FLOWS IN LEVITATED LASER-HEATED DROPS
 05/03/1996 - 05/31/2000 FY98: \$55,000 Total: \$245,000
Prin. Invest.: S S SADHAL
Tech. Officer: LERC/B S SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1877 UNIVERSITY OF SOUTHERN CALIFORNIA **3002**
DETAILED STUDIES ON THE STRUCTURE AND DYNAMICS OF REACTING DUSTING FLOWS IN NORMAL AND MICROGRAVITY
 06/01/1996 - 05/31/2000 FY98: \$82,080 Total: \$253,450
Prin. Invest.: P N EGOLFOPOULOS, P S CAMPBELL
Tech. Officer: LERC/D D ROSS, LERC/M A SOCKSTEILER
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2124 UNIVERSITY OF SOUTHERN CALIFORNIA **3003**
STRUCTURE OF FLAME BALLS IN LOW LEWIS NUMBER STRUCTURE OF FLAME BALLS IN LOW LEWIS NUMBER
 02/10/1998 - 01/07/2001 FY98: \$201,500 Total: \$201,500
Prin. Invest.: P D RONNEY
Tech. Officer: LERC/K J WEILAND
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2125 UNIVERSITY OF SOUTHERN CALIFORNIA **3004**
THE DYNAMICS OF MISCIBLE INTERFACES: A SPACE FLIGHT EXPERIMENT
 02/25/1998 - 12/31/2002 FY98: \$123,000 Total: \$123,000
Prin. Invest.: T MAXWORTHY, E H MEIBURG
Tech. Officer: LERC/B SIGH
CASE Category: 46 - MECHANICAL ENGR

NAG 4 137 UNIVERSITY OF SOUTHERN CALIFORNIA **3005**
NASA'S ELECTRONIC PROCUREMENT SYSTEM AND THE IMPACT ON SMALL BUSINESS
 07/28/1997 - 03/31/1998 FY98: -\$1,340 Total: \$30,660
Prin. Invest.: K DOZIER
Tech. Officer: DFRG/Y KELLOGG, DFRG/E DUKE
CASE Category: 12 - CHEMISTRY

NAG 5 1296 UNIVERSITY OF SOUTHERN CALIFORNIA **3006**
DETERMINATION OF THE EFFECTIVE TEMPERATURE SURFACE GRAVITIES
 09/15/1989 - 02/14/1999 FY98: -\$2,594 Total: \$198,236
Prin. Invest.: G J PETERS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2292 UNIVERSITY OF SOUTHERN CALIFORNIA **3007**
A SURVEY OF EUV EMISSION IN NEARBY B STARS
 06/11/1993 - 10/31/1996 FY98: \$0 Total: \$106,085
Prin. Invest.: G J PETERS
Tech. Officer: GSFC/R OLIVERSON
CASE Category: 1 - ASTRONOMY

NAG 5 2313 UNIVERSITY OF SOUTHERN CALIFORNIA **3008**
LONG-TERM FU / FLUX AND WIND VARIABILITY IN B STARS AND MULTI-WAVELENGTH OBS. AT EQUATOR-ON
 07/12/1993 - 07/11/1999 FY98: \$0 Total: \$25,000
Prin. Invest.: G J PETERS
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 2951 UNIVERSITY OF SOUTHERN CALIFORNIA **3009**
TECTONIC CONTROLS ON LANDSCAPE DEVELOPMENT: A CASE STUDY OF THE SAN BERNARDINO AND SAN GABRIEL...
 06/07/1995 - 06/14/1998 FY98: \$0 Total: \$199,828
Prin. Invest.: D W BURBANK
Tech. Officer: GSFC/H V FREY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3113 UNIVERSITY OF SOUTHERN CALIFORNIA **3010**
DEVELOPMENT OF ALGORITHMS OF PHYTOPLANKTON BIO-MASS, PRIMARY PRODUCTION AND ZOOPLANKTON BIOMASS..
 10/19/1995 - 10/31/1997 FY98: \$0 Total: \$154,605
Prin. Invest.: D A KIEFER
Tech. Officer: GSFC/K R ARRIGO, GSFC/C R MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NAG 5 3429 UNIVERSITY OF SOUTHERN CALIFORNIA **3011**
THE ABUNDANCES OF THE IRON GROUP ELEMENTS IN EARLY B STARS
 10/21/1996 - 10/31/1998 FY98: \$36,800 Total: \$65,300
Prin. Invest.: G J PETERS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4159 UNIVERSITY OF SOUTHERN CALIFORNIA **3012**
ATOMIC AND MOLECULAR PROCESSES IN THE IO PLASMA TO
 03/26/1997 - 12/11/1997 FY98: \$0 Total: \$60,000
Prin. Invest.: P E SHEMANSKY
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4488 UNIVERSITY OF SOUTHERN CALIFORNIA **3013**
EUVE OBSERVATIONS OF ACTIVE B STARS
 06/04/1997 - 05/31/1999 FY98: \$0 Total: \$17,366
Prin. Invest.: G J PETERS
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 4539 UNIVERSITY OF SOUTHERN CALIFORNIA **3014**
"FEATHERWEIGHT" OPTICS FREE EUV SPECTROMETER FOR P MISSIONS
 05/06/1997 - 05/31/1999 FY98: \$0 Total: \$124,606
Prin. Invest.: D L JUDGE
Tech. Officer: GSFC/C CAMPBELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4591 UNIVERSITY OF SOUTHERN CALIFORNIA **3015**
OUTER PLANETS UPPER ATMOSPHERE/MAGNETOSPHERE RESEARCH
 05/09/1997 – 12/31/1998 FY98: \$60,000 Total: \$120,000
Prin. Invest.: P E SHEMANSKY
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 5018 UNIVERSITY OF SOUTHERN CALIFORNIA **3016**
ROCKET UNDERFLIGHTS FOR SOHO CROSS-CALIBRATION AND SOLAR ATMOSPHERE INVESTIGATIONS
 02/28/1994 – 02/28/1999 FY98: \$255,056 Total: \$1,255,087
Prin. Invest.: D J JUDGE
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 – PHYSICS

NAG 5 6104 UNIVERSITY OF SOUTHERN CALIFORNIA **3017**
HELIOSEISMOLOGICAL STUDIES OF THE STRUCTURE AND DYNAMICS OF THE SOLAR ATMOSPHERE AND INTERIOR
 07/24/1997 – 12/31/1998 FY98: \$0 Total: \$104,000
Prin. Invest.: D RHODES
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 – PHYSICS

NAG 5 6121 UNIVERSITY OF SOUTHERN CALIFORNIA **3018**
STUDY OF NEUTRAL GAS AND DUST IN THE SUN'S VICINITY
 08/13/1997 – 12/31/1998 FY98: \$0 Total: \$34,927
Prin. Invest.: D A GRUNTMAN
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 – PHYSICS

NAG 5 6216 UNIVERSITY OF SOUTHERN CALIFORNIA **3019**
EQUATION OF STATE STUDIES USING SOHO DATA
 08/21/1997 – 07/31/1998 FY98: \$0 Total: \$49,444
Prin. Invest.: D DAPPEN
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 – PHYSICS

NAG 5 6360 UNIVERSITY OF SOUTHERN CALIFORNIA **3020**
OCEAN COLOR ALGORITHMS FOR PHOTOSYNTHETIC RATE AND BIO-OPTICAL COMPONENT
 10/24/1997 – 09/14/1999 FY98: \$335,089 Total: \$335,089
Prin. Invest.: D A KIEFER
Tech. Officer: GSFC/J A YODER
CASE Category: 33 – OCEANOGRAPHY

NAG 5 6512 UNIVERSITY OF SOUTHERN CALIFORNIA **3021**
OPTICAL AND ANCILLARY MEASUREMENTS AT HIGH LATITUDES IN SUPPORT OF THE MODIS OCEAN VALIDATION PROGRAM
 12/05/1997 – 09/30/1999 FY98: \$110,918 Total: \$110,918
Prin. Invest.: M STRAMSKA
Tech. Officer: GSFC/D O STARR
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 6621 UNIVERSITY OF SOUTHERN CALIFORNIA **3022**
PHOTON ABSORPTION & EMISSION STUDIES OF ATMOSPHERIC GASES
 11/18/1997 – 09/30/1998 FY98: \$69,321 Total: \$69,321
Prin. Invest.: D JUDGE
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6696 UNIVERSITY OF SOUTHERN CALIFORNIA **3023**
AN INVESTIGATION OF THE HIGH TEMPERATURE CIRCUMSTELLAR PLASMA IN ALGOL-TYPE INTERACTING BINARIES
 12/17/1997 – 12/31/1998 FY98: \$40,000 Total: \$40,000
Prin. Invest.: G PETERS
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 – ASTRONOMY

NAG 5 6940 UNIVERSITY OF SOUTHERN CALIFORNIA **3024**
ION REACTION PROPERTIES IN THE OUTER PLANETS AND COMETS
 01/30/1998 – 12/31/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: D SHEMANSKY
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 – ASTRONOMY

NAG 5 6966 UNIVERSITY OF SOUTHERN CALIFORNIA **3025**
PHYSICAL PROCESSES AT THE HELIOSPHERIC BOUNDARY AND THEIR DETECTABLE SIGNATURES AT 1 AU. A THEORETICAL STUDY
 03/05/1998 – 02/28/2001 FY98: \$20,000 Total: \$20,000
Prin. Invest.: M A GRUNTMAN
Tech. Officer: GSFC/J LING
CASE Category: 11 – ASTRONOMY

NAG 5 7117 UNIVERSITY OF SOUTHERN CALIFORNIA **3026**
EUV OBSERVATIONS OF EARLY B STARS: EUV FLUX VARIABILITY IN BETA CYGNI THROUGHOUT ITS BEAT PERIOD
 04/13/1998 – 04/14/1999 FY98: \$11,520 Total: \$11,520
Prin. Invest.: G J PETERS
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 7147 UNIVERSITY OF SOUTHERN CALIFORNIA **3027**
MINIATURIZED OPTICS FREE EUV ARRAY SPECTROMETER TO PROVIDE STABLE SOLAR EUV SPECTRA
 03/23/1998 – 04/14/2000 FY98: \$54,774 Total: \$54,774
Prin. Invest.: D L JUDGE
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 7222 UNIVERSITY OF SOUTHERN CALIFORNIA **3028**
CROSS-CORRELATION ANALYSIS OF UV PROFILE VARIATIONS AND NON-RADIAL PULSATIONS IN B STARS
 04/10/1998 – 04/14/1999 FY98: \$11,000 Total: \$11,000
Prin. Invest.: G PETERS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7243 UNIVERSITY OF SOUTHERN CALIFORNIA **3029**
A QUANTITATIVE FINGERPRINT OF OCEAN COLOR VARIABILITY IN YELLOW SEA DURING APRIL 1998 CRUISE
 04/10/1998 – 02/28/1999 FY98: \$38,976 Total: \$38,976
Prin. Invest.: R ITURRIAGA
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7352 UNIVERSITY OF SOUTHERN CALIFORNIA **3030**
EQUATION OF STATE STUDIES USING SOHO DATA
 04/29/1998 – 06/30/1999 FY98: \$43,975 Total: \$43,975
Prin. Invest.: W DAPPEN
Tech. Officer: GSFC/A POLAND
CASE Category: 13 – PHYSICS

NAG 5 7369 UNIVERSITY OF SOUTHERN CALIFORNIA **3031**
ANALYSIS OF SOLAR EUV AND SOFT X-RAY EMISSION VARIATION
OBSERVED FROM THE CELIAS/SEM ABOARD SOHO
 05/06/1998 - 04/30/1999 FY98: \$47,207 Total: \$47,207
Prin. Invest.: H S OGAWA
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 8 1240 UNIVERSITY OF SOUTHERN CALIFORNIA **3032**
NUMERICAL & LABORATORY EXPERIMENTS ON INTERACTIVE DYNAMICS
OF CONVECTION & DIRECTIONAL SOLIDIFICATION
 04/15/1996 - 04/14/2000 FY98: \$62,500 Total: \$249,999
Prin. Invest.: T MAXWORTHY, E MEIBURG
Tech. Officer: MSFC/F LESLIE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 13 UNIVERSITY OF SOUTHERN CALIFORNIA **3033**
THREE DIMENSIONAL OBSERVATIONAL STUDY OF SOLAR 5 MINUTE
OSCILLATIONS
 01/01/1980 - 09/30/1997 FY98: \$0 Total: \$2,600,846
Prin. Invest.: E J RHODES
Tech. Officer: HQ/J D BOHLIN, HQ/S KANE
CASE Category: 13 - PHYSICS

NAGW 1924 UNIVERSITY OF SOUTHERN CALIFORNIA **3034**
PHOTON ABSORPTION AND EMISSION STUDIES OF ATMOSPHERIC
GASES
 02/06/1990 - 12/31/1997 FY98: \$0 Total: \$668,147
Prin. Invest.: D L JUDGE
Tech. Officer: HQ/J BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAGW 3574 UNIVERSITY OF SOUTHERN CALIFORNIA **3035**
ANALYSIS OF PHOTOSYNTHETIC RATE AND BIO-OPTICAL COMPONENTS
FROM OCEAN COLOR IMAGERY
 05/30/1993 - 08/31/1997 FY98: \$0 Total: \$587,465
Prin. Invest.: D A KIEFER
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 33 - OCEANOGRAPHY

NAGW 3762 UNIVERSITY OF SOUTHERN CALIFORNIA **3036**
APPLICATION OF DIGITAL ELEVATION AND REMOTELY SENSORED DATA TO
NEOTECTONICS
 09/23/1993 - 06/30/1997 FY98: \$0 Total: \$177,521
Prin. Invest.: D BURBANK, E PAYLOR
Tech. Officer: HQ/M BALTUCK
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 4800 UNIVERSITY OF SOUTHERN CALIFORNIA **3037**
HIGH-RESOLUTION TEMPERATURE-DEPENDENT ABSORPTION CROSS
SECTION MEASUREMENTS OF S2
 11/03/1995 - 11/30/1996 FY98: \$0 Total: \$25,079
Prin. Invest.: R WU
Tech. Officer: HQ/E BARKER
CASE Category: 11 - ASTRONOMY

NAGW 5102 UNIVERSITY OF SOUTHERN CALIFORNIA **3038**
FEATHERWEIGHT OPTICS FREE EUV SPECTROMETER FOR PLANETARY
AND COMETARY MISSIONS
 06/10/1996 - 12/31/1997 FY98: \$0 Total: \$115,967
Prin. Invest.: D L JUDGE
Tech. Officer: HQ/T KOSTIUK, HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NAS 2 96009 UNIVERSITY OF SOUTHERN CALIFORNIA **3039**
MEMBERSHIP TO THE IMSC
 08/13/1996 - 07/31/1999 FY98: \$100,000 Total: \$300,000
Prin. Invest.: C L NIKIAS
Tech. Officer: ARC/H LUM
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NAS 8 40736 UNIVERSITY OF SOUTHERN CALIFORNIA **3040**
SPACE LAB MISSION
 01/29/1996 - 12/31/1997 FY98: -\$1,283 Total: \$452,980
Prin. Invest.: P J RONNEY
Tech. Officer: MSFC/T VANHOOSER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 8 97115 UNIVERSITY OF SOUTHERN CALIFORNIA **3041**
USC RTTC
 01/30/1997 - 12/31/1998 FY98: \$1,415,001 Total: \$2,400,001
Prin. Invest.: G EEKEY
Tech. Officer: AF/C/C CASTELLANO
CASE Category: 42 - ASTRONAUTICAL ENGR

NASW 4680 UNIVERSITY OF SOUTHERN CALIFORNIA **3042**
NASW-4680/UNIV SOUTHERN CALIFORNIA RTTC LOCATED IN THE FAR WEST
REGION OF THE U.S.
 12/20/1991 - 10/31/1997 FY98: -\$17,624 Total: \$6,272,376
Prin. Invest.: R STARK
Tech. Officer: HQ/F E PENARANDA
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NCC 1 276 UNIVERSITY OF SOUTHERN CALIFORNIA **3043**
EXPERIMENTAL INVESTIGATION OF BOUNDARY LAYER INGESTION
 03/18/1998 - 12/31/1998 FY98: \$75,000 Total: \$75,000
Prin. Invest.: R I BLACKWELDER, P S LISSAMAN
Tech. Officer: LARC/B L BERRIER, LARC/C A HUNTER
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 910 UNIVERSITY OF SOUTHERN CALIFORNIA **3044**
INDIVIDUAL DIFFERENCES IN THE STRATEGIC MANAGEMENT OF WORK-
LOAD FOR AIF CARRIER PILOTS
 06/26/1995 - 06/30/1998 FY98: \$0 Total: \$77,622
Prin. Invest.: D L DAMOS
Tech. Officer: ARC/E A PALMER, ARC/M G SHAFTO
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 501 UNIVERSITY OF SOUTHERN CALIFORNIA **3045**
THE HIGH-LEWIS NUMBER DIFFUSIVE-THERMAL INSTABILITY IN PRE-
MIXED GAS COMBUSTION & LOW TEMPERATURE HY
 09/05/1996 - 04/04/2000 FY98: \$87,796 Total: \$216,709
Prin. Invest.: H J PEARLMAN, NONE
Tech. Officer: LARC/D W GRIFFIN
CASE Category: 46 - MECHANICAL ENGR

NGT 30237 UNIVERSITY OF SOUTHERN CALIFORNIA **3046**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/10/1994 - 04/31/1997 FY98: \$0 Total: \$65,958
Prin. Invest.: D A KIEFER
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

NGT 51358 UNIVERSITY OF SOUTHERN CALIFORNIA **3047**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 – 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: P D RONNEY
Tech. Officer: HQ/G A LESANE
CASE Category: 46 – MECHANICAL ENGR

NGT 3 52336 UNIVERSITY OF SOUTHERN CALIFORNIA **3048**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/19/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: J SILVESTER
Tech. Officer: LERC/F MONTEGANI
CASE Category: 45 – ELECTRICAL ENGR

NSG 5108 UNIVERSITY OF SOUTHERN CALIFORNIA **3049**
ROCKET EXPERIMENTS TO MEASURE THE SOLAR SPECTRAL PROFILE & INTENSITY
 04/01/1976 – 10/31/1998 FY98: \$0 Total: \$2,995,409
Prin. Invest.: D L JUDGE, H S OGAWA
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 – PHYSICS

NSG 5422 UNIVERSITY OF SOUTHERN CALIFORNIA **3050**
A COMPARATIVE STUDY OF THE LAR ULTRAVIOLET SPECTRA OF BE STARS
 10/15/1979 – 01/31/1998 FY98: \$0 Total: \$357,240
Prin. Invest.: G J PETERS, R S POLIDAN, J RPERCY
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 4 122 VICTOR VALLEY COLLEGE **3051**
INQUIRY-BASED STRATEGIES FOR SUCCESS
 03/27/1997 – 07/30/1997 FY98: -\$170 Total: \$19,830
Prin. Invest.: P CHIMIKLIS
Tech. Officer: DFRC/L DUKE
CASE Category: 22 – COMPUTER SCIENCE

COLORADO

NAG 8 1226 COLORADO COLLEGE **3052**
JOVE
 02/22/1996 – 08/31/1998 FY98: \$0 Total: \$60,000
Prin. Invest.: C E FOSHA, M F AUGUSTEIJN
Tech. Officer: MSFC/D SIX
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 3 1409 COLORADO SCHOOL OF MINES **3053**
THE EFFECTS OF MICROGRAVITY ON VAPOR PHASE SINTERING
 01/05/1993 – 02/10/1998 FY98: \$0 Total: \$479,111
Prin. Invest.: D READY
Tech. Officer: LERC/T K GLASGOW, LERC/R ASTHANA
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 3 1628 COLORADO SCHOOL OF MINES **3054**
COMBUSTION OF PTIE: THE EFFECTS OF GRAVITY ON ULT RAFINE PARTICLE GENERATION
 06/24/1994 – 09/30/1998 FY98: \$0 Total: \$469,000
Prin. Invest.: J T MCKINNON
Tech. Officer: LERC/R FRIEDMAN, LERC/H D ROSS
CASE Category: 43 – CHEMICAL ENGR

NAG 3 1698 COLORADO SCHOOL OF MINES **3055**
STUDY OF COMBUSTION SYNTHESIS OF CERAMIC-METAL COMPOSITE MATERIALS UNDER MICROGRAVITY CONDITIONS – P
 01/19/1995 – 11/30/1998 FY98: \$76,143 Total: \$441,143
Prin. Invest.: J J MOORE
Tech. Officer: LERC/S GOKOGLU
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 3 1970 COLORADO SCHOOL OF MINES **3056**
NMRI MEASUREMENTS & GRANULAR DYNAMICS SIMULATIONS OF SEGREGATION OF GRANULAR MIXTURES
 09/25/1996 – 09/18/1999 FY98: \$0 Total: \$328,172
Prin. Invest.: M NAKAGAWA, E FUKUSHIMA
Tech. Officer: LERC/B SINGH
CASE Category: 46 – MECHANICAL ENGR

NCCW 96 COLORADO SCHOOL OF MINES **3057**
THE CENTER FOR COMMERCIAL APPLICATIONS OF COMBUSTION IN SPACE
 05/01/1996 – 10/31/1998 FY98: \$1,260,000 Total: \$2,418,613
Prin. Invest.: F SCHOWENGERDT
Tech. Officer: HQ/M NALL
CASE Category: 49 – ENGINEERING, OTHER

NAG 1 1266 COLORADO STATE UNIVERSITY **3058**
AN INTERDISCIPLINARY SCIENCE INVESTIGATION OF CLOUDS AND THE EARTH'S RADIANT ENERGY SYSTEM-CERES
 05/06/1991 – 10/31/1998 FY98: \$152,233 Total: \$980,006
Prin. Invest.: D A RANDALL
Tech. Officer: LARC/B A WIELICKI, LARC/J W YOUNGBLOOD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1461 COLORADO STATE UNIVERSITY **3059**
REUSE METRICS FOR OBJECT ORIENTED SOFTWARE NLPN 92-821
 12/04/1992 – 11/01/1997 FY98: -\$1 Total: \$179,997
Prin. Invest.: J M BIEMAN
Tech. Officer: LARC/K A SMITH, LARC/W H BRYANT
CASE Category: 22 – COMPUTER SCIENCE

NAG 1 1701 COLORADO STATE UNIVERSITY **3060**
INTERACTIONS OF THE CLOUDY ARCTIC BOUNDARY LAYER WITH VARIABLE SURFACE CONDITIONS AND LARGE-SCALE
 04/10/1995 – 04/30/1998 FY98: \$1 Total: \$225,000
Prin. Invest.: D A RANDALL
Tech. Officer: LARC/D S MCDOUGAL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1702 COLORADO STATE UNIVERSITY **3061**
A NEW APPROACH TO THE REMOTE SENSING OF CIRRUS CLOUD PARAMETERS USING SUBMILLIMETER RADIOMETER
 05/08/1995 – 09/15/1998 FY98: -\$6,859 Total: \$140,736
Prin. Invest.: G L STEPHENS, K F EVANS
Tech. Officer: LARC/D S MCDOUGAL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1703 COLORADO STATE UNIVERSITY **3062**
LARGE EDDY SIMULATION OF CIRRUS CLOUDS
 04/24/1995 – 04/30/1999 FY98: -\$17,463 Total: \$94,079
Prin. Invest.: W R COTTON
Tech. Officer: LARC/D S MCDOUGAL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1704 COLORADO STATE UNIVERSITY **3063**
RELATIVE SIGNIFICANCE OF MIDDLE AND UPPER TROPOSPHERIC CLOUDS
 03/21/1995 - 03/31/1998 FY98: -\$13,258 Total: \$430,742
Prin. Invest.: S K COX, J M DAVIS
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2045 COLORADO STATE UNIVERSITY **3064**
LARGE EDDY SIMULATION OF CIRRUS CLOUDS
 04/02/1998 - 04/30/1999 FY98: \$34,463 Total: \$34,463
Prin. Invest.: W COTTON
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2062 COLORADO STATE UNIVERSITY **3065**
A NEW APPROACH TO THE REMOTE SENSING OF CIRRUS CLOUD PARAMETERS USING SUB-MILLIMETER RADIOMETER AND
 05/18/1998 - 05/07/1999 FY98: \$28,859 Total: \$28,859
Prin. Invest.: G STEPHENS
Tech. Officer: LARC/D S MCDUGAL, LARC/J L RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2063 COLORADO STATE UNIVERSITY **3066**
STUDIES OF ICE NUCLEATING AEROSOL PARTICLES IN ARCTIC CLOUD SYSTEMS
 05/19/1998 - 02/28/2001 FY98: \$96,906 Total: \$96,906
Prin. Invest.: D C ROGERS, J P DEMOTT
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2080 COLORADO STATE UNIVERSITY **3067**
RADIATIVE SIGNIFICANCE OF MIDDLE AND UPPER TROPOSPHERIC CLOUDS
 06/23/1998 - 03/31/1999 FY98: \$118,258 Total: \$118,258
Prin. Invest.: S K COX
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2081 COLORADO STATE UNIVERSITY **3068**
INTERACTIONS OF THE CLOUDY ARCTIC BOUNDARY LAYER WITH VARIABLE SURFACE CONDITIONS
 06/23/1998 - 04/30/1999 FY98: \$75,000 Total: \$75,000
Prin. Invest.: D A RANDALL
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1109 COLORADO STATE UNIVERSITY **3069**
ANALYSIS OF ICE NUCLEATING AEROSOL MEASUREMENTS DURING SUCCESS - APRIL, MAY 1996
 01/31/1997 - 12/31/1997 FY98: \$0 Total: \$69,575
Prin. Invest.: D C ROGERS, P J DEMOTT, S M KREIDENSEIS
Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1801 COLORADO STATE UNIVERSITY **3070**
ADVANCED ELECTRIC PROPULSION RESEARCH
 01/23/1996 - 09/22/1998 FY98: \$30,041 Total: \$85,107
Prin. Invest.: P J WILBUR
Tech. Officer: LERC/V K RAWLIN
CASE Category: 13 - PHYSICS

NAG 5 1058 COLORADO STATE UNIVERSITY **3071**
HYDROLOGICAL CLOUD STUDIES
 07/15/1988 - 08/1/1997 FY98: \$0 Total: \$670,806
Prin. Invest.: D R RANDALL
Tech. Officer: GS/CW WISCOMBE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2692 COLORADO STATE UNIVERSITY **3072**
GROUND TRUTH RESEARCH AND ALGORITHM DEVELOPMENT IN SUPPORT OF TRMM
 08/26/1994 - 02/28/1998 FY98: \$0 Total: \$377,000
Prin. Invest.: S A RUTLEDGE
Tech. Officer: GSFC/S A ALDER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3449 COLORADO STATE UNIVERSITY **3073**
WATER VAPOR IN THE CLIMATE SYSTEM (RTOP # 148-65-
 11/05/1996 - 10/31/1998 FY98: \$300,000 Total: \$600,000
Prin. Invest.: G L STEPHENS
Tech. Officer: GSFC/J C DODGE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3768 COLORADO STATE UNIVERSITY **3074**
HZE RADIATION GENOTOXICITY IN CULTURED MAMMALIAN C
 02/06/1997 - 11/30/1998 FY98: \$129,794 Total: \$259,588
Prin. Invest.: C A WALDREN
Tech. Officer: GSFC/S SCHIMMERLING
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4073 COLORADO STATE UNIVERSITY **3075**
CLIMATE SENSITIVITY OF THAW LAKE SYSTEMS ON THE AL
 03/17/1997 - 11/31/1998 FY98: \$13,037 Total: \$25,335
Prin. Invest.: D JISTON
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4646 COLORADO STATE UNIVERSITY **3076**
TITLE: USING MULTI-SENSOR DATA TO MODEL FACTORS IN GLOBAL ARID & SEMI-ARID LANDS
 06/17/1997 - 03/31/1999 FY98: \$571,490 Total: \$1,182,290
Prin. Invest.: D OJIMA
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4749 COLORADO STATE UNIVERSITY **3077**
ANALYSIS OF THE DIURNAL CYCLE OF PRECIPITATION AND RADIATIVE FORCING USING TRMM PRODUCTS
 06/26/1997 - 06/30/1999 FY98: \$119,000 Total: \$238,534
Prin. Invest.: E RANDALL
Tech. Officer: GSFC/O THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4754 COLORADO STATE UNIVERSITY **3078**
VALIDATION STUDIES AND ALGORITHM REFINEMENT IN SUP
 08/17/1997 - 05/31/1999 FY98: \$172,000 Total: \$292,000
Prin. Invest.: S A RUTLEDGE
Tech. Officer: GSFC/R A ALDER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4760 COLORADO STATE UNIVERSITY **3079**
RECONSTRUCTING SNOW-DEPTH DISTRIBUTIONS USING MODIS AND A REGIONAL ATMOSPHERIC MODEL
 06/09/1997 - 09/30/1997 FY98: \$0 Total: \$25,000
Prin. Invest.: G E LISTON
Tech. Officer: GSFC/D K HALL
CASE Category: 55 - AGRICULTURE

NAG 5 4983 COLORADO STATE UNIVERSITY **3080**
THE BIO-ATMOSPHERIC CYCLES OF NITROGEN AND CARBON: POLLUTION AND TERRESTRIAL ECOSYSTEMS
 08/29/1997 - 07/31/1999 FY98: \$27,500 Total: \$52,500
Prin. Invest.: W PARTON
Tech. Officer: HQ/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5188 COLORADO STATE UNIVERSITY **3081**
WORKSHOP ON THE DEVELOPMENT OF A TEMPERATE EAST AS DATA-BASE
 07/18/1997 - 07/31/1998 FY98: \$0 Total: \$35,000
Prin. Invest.: D OJIMA
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6228 COLORADO STATE UNIVERSITY **3082**
VEMAP PHASE II
 09/11/1997 - 06/30/1999 FY98: \$100,730 Total: \$202,182
Prin. Invest.: D OJIMA
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6637 COLORADO STATE UNIVERSITY **3083**
ASSESSING THE IMPACT OF REMOTE SENSING DATA ON CLOUDINESS PREDICTION IN SHORT-TERM FORECASTS
 11/18/1997 - 10/31/1999 FY98: \$363,318 Total: \$363,318
Prin. Invest.: P L STEPHENS
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7558 COLORADO STATE UNIVERSITY **3084**
SNOW HYDROLOGY-THE PARAMETERIZATION OF SUBGRID PROCESSES WITHIN A PHYSICALLY BASED SNOW ENERGY
 07/02/1998 - 06/30/2001 FY98: \$51,313 Total: \$51,313
Prin. Invest.: K ELDER
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7560 COLORADO STATE UNIVERSITY **3085**
A SNOW-EVOLUTION MODELING-SYSTEM FOR WEATHER, CLIMATE, AND HYDROLOGIC APPLICATIONS
 06/29/1998 - 06/30/2001 FY98: \$320,000 Total: \$320,000
Prin. Invest.: G E LISTON
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 8 1511 COLORADO STATE UNIVERSITY **3086**
COUPLING ATMOSPHERIC, ECOLOGIC, AND HYDROLOGIC PROCESSES IN A REGIONAL CLIMATE MODEL
 03/05/1998 - 03/01/2002 FY98: \$123,859 Total: \$123,859
Prin. Invest.: R A PIELKE, G E LISTON
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 2662 COLORADO STATE UNIVERSITY **3087**
USING MULTI-SENSOR DATA TO MODEL FACTORS LIMITING CARBON BALANCE IN GLOBAL ARID AND SEMIARID LANDS
 08/22/1991 - 09/30/1996 FY98: \$0 Total: \$3,109,969
Prin. Invest.: D S SCHIMMEL
Tech. Officer: HQ/R E MURPHY, HQ/W S WILSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 2700 COLORADO STATE UNIVERSITY **3088**
NAGW-2700/COLORADO STATE UNIV/GLOBAL ANALYSIS OF THE EARTH ENERGY BUDGET & WATER CYCLE USING SATELLITE
 09/16/1991 - 11/30/1997 FY98: \$0 Total: \$575,550
Prin. Invest.: T H HAAR
Tech. Officer: HQ/J C DODGE, HQ/A J TUYAHOV
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4122 COLORADO STATE UNIVERSITY **3089**
STUDIES OF THE EARTH ENERGY BUDGET AND WATER CYCLE USING SATELLITE OBSERVATIONS AND MODEL ANALYSES
 09/08/1994 - 09/30/1997 FY98: \$0 Total: \$162,540
Prin. Invest.: G C CAMPBELL
Tech. Officer: HQ/J C DODGE, HQ/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4924 COLORADO STATE UNIVERSITY **3090**
HZE RADIATION GENOTOXICITY IN CULTURED MAMMALIAN CELLS
 02/12/1996 - 05/31/1997 FY98: \$0 Total: \$129,794
Prin. Invest.: C A WALDREN, PH.D.
Tech. Officer: HQ/W SCHIMMERLING
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 5242 COLORADO STATE UNIVERSITY **3091**
VEMP PHASE II
 11/18/1996 - 12/31/1997 FY98: -\$132 Total: \$100,600
Prin. Invest.: D S OJIMA
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG10 234 COLORADO STATE UNIVERSITY **3092**
GRAVITY INDUCED CHANGES IN GENE EXPRESSION
 09/22/1997 - 08/15/1998 FY98: \$0 Total: \$172,340
Prin. Invest.: A N REDDY
Tech. Officer: KSC/W M KNOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAS 1 19951 COLORADO STATE UNIVERSITY **3093**
SCIENCE SUPPORT TO THE LITE SCIENCE TEAM
 07/20/1993 - 10/19/1999 FY98: \$0 Total: \$236,999
Prin. Invest.: D RANDALL
Tech. Officer: LARC/G L MADDREA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 3 26410 COLORADO STATE UNIVERSITY **3094**
ACTS PROPAGATION EXPERIMENTS
 05/19/1993 - 04/30/1999 FY98: \$69,253 Total: \$481,041
Prin. Invest.: V N BRINGI
Tech. Officer: LERC/R J GUNDERMAN
CASE Category: 41 - AERONAUTICAL ENGR

NAS 5 31730 COLORADO STATE UNIVERSITY **3095**
EOS - BIOSPHERE - ATMOSPHERE INTERACTION" STUDY
 10/18/1991 - 12/31/1999 FY98: \$170,300 Total: \$1,301,550
Prin. Invest.: D RANDALL
Tech. Officer: GSFC/P SELLERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 8 97082 COLORADO STATE UNIVERSITY **3096**
A STUDY OF THE ROLE OF CLOUDS IN THE RELATIONSHIP BETWEEN LAND USE/LAND COVER AND THE CLIMATE
 11/21/1996 - 11/20/1999 FY98: \$58,866 Total: \$172,624
Prin. Invest.: S Q KIDDER
Tech. Officer: MSFC/T MILLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 907 COLORADO STATE UNIVERSITY **3097**
A CRITICAL ANALYSIS OF EDUCATION & SCIENCE COMMUNICATION PROGRAMS IN THE SPACE LIFE SCIENCES
 07/17/1995 - 10/31/1998 FY98: \$358,856 Total: \$1,463,099
Prin. Invest.: G R COULTER
Tech. Officer: ARC/R A GRAYMES
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 5 284 COLORADO STATE UNIVERSITY **3098**
SPATIAL INTEGRATION OF REGIONAL CARBON BALANCE IN AMAZONIA
 06/25/1998 - 02/28/1999 FY98: \$110,530 Total: \$110,530
Prin. Invest.: A DENNING
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 288 COLORADO STATE UNIVERSITY **3099**
JOINT RESEARCH STUDIES ON EARTH-ATMOSPHERIC PROBLEMS
 06/05/1998 - 03/31/1999 FY98: \$115,943 Total: \$115,943
Prin. Invest.: G L STEPHENS
Tech. Officer: GSFC/A J NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 30231 COLORADO STATE UNIVERSITY **3100**
GLOBAL CHANGE FELLOWSHIP AWARD
 10/04/1994 - 08/31/1997 FY98: -\$15,980 Total: \$50,020
Prin. Invest.: W R COTTON
Tech. Officer: HQ/J S THEON, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30252 COLORADO STATE UNIVERSITY **3101**
GLOBAL CHANGE FELLOWSHIP AWARD
 10/04/1994 - 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: J K DETHING
Tech. Officer: HQ/AC JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30268 COLORADO STATE UNIVERSITY **3102**
GLOBAL CHANGE FELLOWSHIP AWARD
 10/04/1994 - 11/30/1997 FY98: -\$4 Total: \$65,996
Prin. Invest.: S A RUTLEDGE
Tech. Officer: HQ/J S THEON, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 70373 COLORADO STATE UNIVERSITY **3103**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 08/22/1994 - 09/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: W Z SADEH
Tech. Officer: HQ/D K RUSSELL
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 30001 COLORADO STATE UNIVERSITY **3104**
STUDIES OF HOMOGENEOUS FREEZING NUCLEATION AT THE CONDITIONS
 10/23/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: S KIEIDENWEIS
Tech. Officer: GS/C/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30024 COLORADO STATE UNIVERSITY **3105**
PARTITIONING OF ECOSYSTEM RESPIRATION AND VECTORS OF SIS USING D13C/D18O WITH IMPLICATIONS FOR NDVI-D
 10/17/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: E KELLY
Tech. Officer: GS/C/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50007 COLORADO STATE UNIVERSITY **3106**
RETRIVAL OF CIRRUS CLOUD MICROPHYSICAL & RADIATIVE SPECTRAL MODIS & MAS MEASUREMENTS
 11/16/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: G S STEPHENS
Tech. Officer: GS/C/A NURRIDIN
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NGT 5 50069 COLORADO STATE UNIVERSITY **3107**
COMPUTER SIMULATION OF CARDIOVASCULAR FUNCTION IN
 09/02/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: R G JTSALL
Tech. Officer: GS/C/L CHAMBER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 11 COLORADO STATE UNIVERSITY **3108**
VACUUM PROCESSING
 07/03/1996 - 07/31/1999 FY98: \$0 Total: \$44,000
Prin. Invest.: M B STONE, J A MAGA, R W PHILLIPS
Tech. Officer: JSI/D G SICKOREZ
CASE Category: 55 - AGRICULTURE

NAG 1 1355 UNIVERSITY OF COLORADO - BOULDER **3109**
OBSERVATIONAL AND MODELING STUDIES OF RADIATIVE CHEMICAL AND DYNAMIC/L INTERACTIONS IN THE EARTH AT
 12/18/1991 - 12/31/1997 FY98: -\$295 Total: \$447,905
Prin. Invest.: M L SALBY
Tech. Officer: LAIC/W L GROSE, LARC/E E REMSBERG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1642 UNIVERSITY OF COLORADO - BOULDER **3110**
EFFECT OF SHEARED ORTHOTROPIC STIFFNESS PROPERTIES ON THE FLAW SENSITIVITY OF STIFFENED PANELS
 09/01/1994 - 10/31/1998 FY98: \$0 Total: \$110,694
Prin. Invest.: M N MIKULAS
Prin. Invest.: NONE
Tech. Officer: LAIC/J H STARNES, LARC/W B FICHTER
CASE Category: 41 - AERONAUTICAL ENGR

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| <p>NAG 1 1700 UNIVERSITY OF COLORADO – BOULDER 3111 ANALYSIS AND DESIGN METHODOLOGY FOR SMALL SPACECRAFT 04/20/1995 – 04/30/1998 FY98: \$35,000 Total: \$621,008 <i>Prin. Invest.:</i> M MUKULAS, K C PARK, R SU <i>Tech. Officer:</i> LARC/M D RHODES, LARC/W K BELVIN <i>CASE Category:</i> 41 – AERONAUTICAL ENGR</p> | <p>NAG 1 2021 UNIVERSITY OF COLORADO – BOULDER 3119 THEORETICAL INVESTIGATIONS OF CLOUDS AND AEROSOLS IN THE STRATOSPHERE AND UPPER TROPOSPHERE 03/12/1998 – 03/11/1999 FY98: \$105,000 Total: \$105,000 <i>Prin. Invest.:</i> O B TOON <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> LARC/G L MADDREA, LARC/L R POOLE <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NAG 1 1708 UNIVERSITY OF COLORADO – BOULDER 3112 APPLICATION OF LES TO UNDERSTANDING AND PARAMETERIZING THE ARCTIC CLOUDY BOUNDARY LAYER 04/20/1995 – 04/30/1998 FY98: \$1 Total: \$396,001 <i>Prin. Invest.:</i> J CURRY, W COTTON <i>Tech. Officer:</i> LARC/D S MCDUGAL <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> | <p>NAG 1 2047 UNIVERSITY OF COLORADO – BOULDER 3120 APPLICATION OF LES TO UNDERSTANDING AND PARAMETERIZING THE ARCTIC CLOUDY BOUNDARY LAYER 04/02/1998 – 04/30/1999 FY98: \$162,000 Total: \$162,000 <i>Prin. Invest.:</i> J A CURRY <i>Tech. Officer:</i> LARC/D J MCDUGAL, LARC/J RAPER <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NAG 1 1840 UNIVERSITY OF COLORADO – BOULDER 3113 SUBMICRON PRECISION DEPLOYABLE SPACECRAFT STRUCTURES 06/10/1996 – 08/31/1997 FY98: \$0 Total: \$85,000 <i>Prin. Invest.:</i> D D PERTERSON <i>Tech. Officer:</i> LARC/M S LAKE <i>CASE Category:</i> 42 – ASTRONAUTICAL ENGR</p> | <p>NAG 1 2068 UNIVERSITY OF COLORADO – BOULDER 3121 EXPERIMENTAL AND ANALYTICAL CHARACTERIZATION OF THE NON-LINEAR BEHAVIOR OF MEMBRANE STRUCTURES 05/11/1998 – 04/10/1999 FY98: \$115,000 Total: \$115,000 <i>Prin. Invest.:</i> M M MIKULAS, JR. <i>Tech. Officer:</i> LARC/M S LAKE <i>CASE Category:</i> 42 – ASTRONAUTICAL ENGR</p> |
| <p>NAG 1 1862 UNIVERSITY OF COLORADO – BOULDER 3114 COMPUTER ENVIRONMENT FOR DESIGN COLLABORATION, INTEGRATION, AND CAPTURE 07/25/1996 – 07/31/1997 FY98: \$0 Total: \$67,000 <i>Prin. Invest.:</i> R SU, D LAWRENCE <i>Tech. Officer:</i> LARC/W J STROUD, LARC/R E GILLIAN <i>CASE Category:</i> 69 – PSYCHOLOGY, OTHER</p> | <p>NAG 2 753 UNIVERSITY OF COLORADO – BOULDER 3122 AIRBORNE ASTRONOMY WITH 100UM-400UM HETERODYNE SPECTROMETER 01/29/1992 – 01/31/1998 FY98: \$0 Total: \$850,000 <i>Prin. Invest.:</i> A L BETZ <i>Tech. Officer:</i> ARC/L QUAIFFE, ARC/C B WILTSEE <i>CASE Category:</i> 11 – ASTRONOMY</p> |
| <p>NAG 1 1864 UNIVERSITY OF COLORADO – BOULDER 3115 LIGHT-WEIGHT ADVANCED AEROACOUSTIC NACELLE DEVELOPMENT 09/09/1996 – 09/08/1998 FY98: \$127,598 Total: \$227,164 <i>Prin. Invest.:</i> S BIRINGEN <i>Tech. Officer:</i> LARC/T L PARROTT <i>CASE Category:</i> 41 – AERONAUTICAL ENGR</p> | <p>NAG 2 861 UNIVERSITY OF COLORADO – BOULDER 3123 VENUS COMPOSITION PROBE DISCOVERY MISSION 07/28/1993 – 06/30/1997 FY98: \$278 Total: \$224,154 <i>Prin. Invest.:</i> L W ESPOSITO <i>Tech. Officer:</i> ARC/L E LASHER, ARC/G S HUBBARD <i>CASE Category:</i> 11 – ASTRONOMY</p> |
| <p>NAG 1 1873 UNIVERSITY OF COLORADO – BOULDER 3116 HPCC METHODOLOGIES FOR STRUCTURAL DESIGN AND ANALYSIS ON PARALLEL & DISTRIBUTED PLATFORMS 09/26/1996 – 09/30/1997 FY98: ~\$260 Total: \$57,842 <i>Prin. Invest.:</i> C FARHAT <i>Tech. Officer:</i> LARC/R E GILLIAN, LARC/W J STROUD <i>CASE Category:</i> 22 – COMPUTER SCIENCE</p> | <p>NAG 2 953 UNIVERSITY OF COLORADO – BOULDER 3124 PHYSICAL & CHEMICAL CHARACTERIZATION OF PARTICLES IN THE UPPER TROPOSPHERE & LOWER STRATOSPHERE:.... 12/23/1994 – 05/31/1998 FY98: \$0 Total: \$210,628 <i>Prin. Invest.:</i> P J SHERIDAN <i>Tech. Officer:</i> ARC/E P CONDON, ARC/O B TOON <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NAG 1 1923 UNIVERSITY OF COLORADO – BOULDER 3117 COMPARISON OF SAGE AND SONDE OZONE DATA FOR THE ICO/SPARC OZONE TREND REVIEW 05/01/1997 – 10/31/1997 FY98: \$0 Total: \$34,879 <i>Prin. Invest.:</i> D W FUSCH <i>Tech. Officer:</i> LARC/L R POOLE <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> | <p>NAG 2 989 UNIVERSITY OF COLORADO – BOULDER 3125 SOFIA SCIENCE WORKING GROUP 06/21/1995 – 05/31/1997 FY98: \$0 Total: \$26,568 <i>Prin. Invest.:</i> J M SHULL <i>Tech. Officer:</i> ARC/E F ERICKSON <i>CASE Category:</i> 11 – ASTRONOMY</p> |
| <p>NAG 1 1927 UNIVERSITY OF COLORADO – BOULDER 3118 REFLECTED GPS SIGNALS: THEORY AND EXPERIMENTS MY 1/2 05/23/1997 – 05/31/1999 FY98: \$115,000 Total: \$215,000 <i>Prin. Invest.:</i> I B BORN, P AXELRAD <i>Tech. Officer:</i> LARC/S J KATZBERG, LARC/M J FEREBEE <i>CASE Category:</i> 41 – AERONAUTICAL ENGR</p> | <p>NAG 2 1056 UNIVERSITY OF COLORADO – BOULDER 3126 FAR-INFRARED LINE PROFILES FROM PHOTODISSOCIATION REGIONS & WARM MOLECULAR CLOUDS 07/01/1996 – 12/31/1998 FY98: \$0 Total: \$60,000 <i>Prin. Invest.:</i> R T BOREIKO <i>Tech. Officer:</i> ARC/L QUAIFFE, ARC/C B WILTSEE <i>CASE Category:</i> 11 – ASTRONOMY</p> |

NAG 2 1062 UNIVERSITY OF COLORADO - BOULDER 3127
A FAR-INFRARED HETERODYNE SPECTROMETER FOR SOFIA
 07/03/1996 - 12/31/1998 FY98: \$0 Total: \$112,000
Prin. Invest.: A L BETZ
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 2 1116 UNIVERSITY OF COLORADO - BOULDER 3128
MODELING ATMOSPHERIC AEROSOLS PROPERTIES FOR EARTH'S RADIATION BUDGET & CLIMATE CHANGE STUDIES
 02/14/1997 - 01/31/1999 FY98: \$30,000 Total: \$285,367
Prin. Invest.: I N SOKOLIK
Tech. Officer: ARC/E J JENSEN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1124 UNIVERSITY OF COLORADO - BOULDER 3129
MEASUREMENTS OF LONG LIVED TRACE GASES FROM COMMERCIAL AIRCRAFT PLATFORMS: INSTRUMENT DEVELOPMENT
 04/08/1997 - 09/30/1998 FY98: \$436,537 Total: \$554,843
Prin. Invest.: L M AVALLONE
Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1127 UNIVERSITY OF COLORADO - BOULDER 3130
MULTIDIMENSIONAL MODELING OF SULFATE AEROSOLS
 04/22/1997 - 03/31/1999 FY98: \$0 Total: \$158,147
Prin. Invest.: M J MILLS
Tech. Officer: ARC/E J JENSEN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1170 UNIVERSITY OF COLORADO - BOULDER 3131
CORRECTING SATELLITE IMAGE DERIVED SURFACE MODEL FOR ATMOSPHERIC EFFECTS
 12/12/1997 - 12/31/1998 FY98: \$100,000 Total: \$100,000
Prin. Invest.: W J EMERY, D BALWIN
Tech. Officer: ARC/S LAU
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 1221 UNIVERSITY OF COLORADO - BOULDER 3132
VENUS DISCOVERY MISSION
 05/21/1998 - 08/31/1998 FY98: \$30,000 Total: \$30,000
Prin. Invest.: L W ESPOSITO
Tech. Officer: ARC/M A SMITH, ARC/C K SORECK
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 2 1258 UNIVERSITY OF COLORADO - BOULDER 3133
CONTRAIL PERSISTENCE & AIRCRAFT EXHAUST IMPACTS ON CIRRUS
 08/25/1998 - 09/30/1998 FY98: \$49,868 Total: \$49,868
Prin. Invest.: O B TOON
Tech. Officer: ARC/R P HIPSKIND, ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1566 UNIVERSITY OF COLORADO - BOULDER 3134
COMPUTATIONAL FLUID DYNAMICS BASED ON THE METHOD OF SPACE-TIME CONSERVATION ELEMENT & SOLUTION ELEMENT
 02/03/1994 - 02/02/1998 FY98: \$11,867 Total: \$217,469
Prin. Invest.: C Y CHOW
Tech. Officer: LERC/S C CHANG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1616 UNIVERSITY OF COLORADO - BOULDER 3135
THREE DIMENSIONAL FLOW OF MICROGRAVITY DIFFUSION FLAME
 06/16/1994 - 11/21/1998 FY98: \$41,000 Total: \$441,000
Prin. Invest.: J R HERTZBERG
Tech. Officer: LERC/H D ROSS
CASE Category: 16 - MECHANICAL ENGR

NAG 3 1685 UNIVERSITY OF COLORADO - BOULDER 3136
IGNITION AND COMBUSTION OF BULK METALS IN A MICROGRAVITY ENVIRONMENT
 11/22/1994 - 12/13/1998 FY98: \$25,000 Total: \$370,474
Prin. Invest.: M C BRANCH
Tech. Officer: LERC/R FRIEDMAN, LERC/H D ROSS
CASE Category: 16 - MECHANICAL ENGR

NAG 3 1846 UNIVERSITY OF COLORADO - BOULDER 3137
STRUCTURE HYDRODYNAMICS AND PHASE TRANSITIONS OF FREELY SUSPENDED LIQUID CRYSTALS
 05/02/1996 - 05/31/2000 FY98: \$130,000 Total: \$262,000
Prin. Invest.: N A CLARK
Tech. Officer: LERC/J S LING, LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1848 UNIVERSITY OF COLORADO - BOULDER 3138
WAVES IN RADIAL GRAVITY USING MAGNETIC FLUID
 06/25/1996 - 06/24/2000 FY98: \$85,000 Total: \$220,000
Prin. Invest.: D F OHLSEN, J E HART, P D WEIDMAN
Tech. Officer: LERC/N R HALL
CASE Category: 11 - ASTRONOMY

NAG 3 1850 UNIVERSITY OF COLORADO - BOULDER 3139
CELL AND PARTICLE INTERACTIONS AND AGGREGATION DURING ELECTROPHORETIC MOTION
 05/02/1996 - 08/31/2000 FY98: \$75,000 Total: \$200,000
Prin. Invest.: R H DAVIS
Tech. Officer: LERC/J S LING, LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 2071 UNIVERSITY OF COLORADO - BOULDER 3140
MICROGRAVITY EXPERIMENT ON LOW VELOCITY IMPACTS
 08/27/1997 - 06/30/1998 FY98: \$0 Total: \$44,005
Prin. Invest.: J E COLWELL
Tech. Officer: LERC/F J KOHL
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2116 UNIVERSITY OF COLORADO - BOULDER 3141
THERMOCAPILLARY-INDUCED PHASE SEPARATION OF DISPERSED SYSTEMS WITH COALESCENCE
 01/28/1998 - 12/31/2001 FY98: \$60,000 Total: \$60,000
Prin. Invest.: R H DAVIS
Tech. Officer: LERC/B S SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 3 2136 UNIVERSITY OF COLORADO - BOULDER 3142
DUSTY PLASMA DYNAMICS NEAR SURFACES IN SPACE. DUSTY PLASMA DYNAMICS NEAR SURFACES IN SPACE.
 03/05/1998 - 01/05/2002 FY98: \$80,000 Total: \$80,000
Prin. Invest.: J E COLWELL, S ROBERTSON, M HORANYI
Tech. Officer: LERC/H K NAHRA
CASE Category: 13 - PHYSICS

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| <p>NAG 5 698 UNIVERSITY OF COLORADO – BOULDER 3143 ROCKET INVESTIGATION OF THE ROLE OF NITRIC OXIDE IN THE LOWER THERMOSPHERE 03/22/1993 – 01/31/1998 FY98: \$0 Total: \$590,388 <i>Prin. Invest.:</i> C A BARTH <i>Tech. Officer:</i> GSFC/L J EARLY, GSFC/R H PLESS <i>CASE Category:</i> 13 – PHYSICS</p> | <p>NAG 5 2353 UNIVERSITY OF COLORADO – BOULDER 3150 THE ROLE OF FAULT SEGMENTATION IN EARTHQUAKE DYNAMICS WITH APPLICATION TO STRIKEFAULTS IN CALIF. 08/12/1993 – 08/14/1997 FY98: \$0 Total: \$258,000 <i>Prin. Invest.:</i> J B RUNDLE <i>Tech. Officer:</i> GSFC/B G BILLS <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE</p> |
| <p>NAG 5 1853 UNIVERSITY OF COLORADO – BOULDER 3144 GODDARD HIGH RESOLUTION SPECTROGRAPH (GHR) INCLUDING ACTIVITIES AS A GHR GUARANTEED TIME OBSERV. 01/02/1992 – 11/14/1999 FY98: \$0 Total: \$2,320,952 <i>Prin. Invest.:</i> J C BRANDT <i>Tech. Officer:</i> GSFC/A SMITH <i>CASE Category:</i> 11 – ASTRONOMY</p> | <p>NAG 5 2530 UNIVERSITY OF COLORADO – BOULDER 3151 CORONAL TEMPERATURE AND EMISSION MEASUREMENTS FOR ACTIVE SUPERGIANT BETA DRA 02/24/1994 – 03/14/1998 FY98: \$0 Total: \$80,000 <i>Prin. Invest.:</i> A BROWN <i>Tech. Officer:</i> GSFC/N WHITE <i>CASE Category:</i> 11 – ASTRONOMY</p> |
| <p>NAG 5 1908 UNIVERSITY OF COLORADO – BOULDER 3145 APPLICATION OF GPS TO CRUSTAL DEFORMATION STUDIES IN CALIFORNIA 02/20/1992 – 08/14/1997 FY98: \$0 Total: \$247,000 <i>Prin. Invest.:</i> K LARSON <i>Tech. Officer:</i> GSFC/B G BILLS <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE</p> | <p>NAG 5 2577 UNIVERSITY OF COLORADO – BOULDER 3152 EOSDIS VOIMS TIREKICKER ACTIVITIES AND SYSTEM PROTOTYPING 04/21/1994 – 02/28/1999 FY98: \$100,000 Total: \$930,429 <i>Prin. Invest.:</i> W J EMERY <i>Tech. Officer:</i> GSFC/K R MCDONALD <i>CASE Category:</i> 22 – COMPUTER SCIENCE</p> |
| <p>NAG 5 2026 UNIVERSITY OF COLORADO – BOULDER 3146 MODELING THE GAMMA-RAY SPECTRA OF ACTIVE GALACTIC NUCLEI 07/08/1992 – 09/30/1997 FY98: \$0 Total: \$136,925 <i>Prin. Invest.:</i> M C BEGELMAN <i>Tech. Officer:</i> GSFC/J P NORRIS, GSFC/N WHITE <i>CASE Category:</i> 11 – ASTRONOMY</p> | <p>NAG 5 2671 UNIVERSITY OF COLORADO – BOULDER 3153 THE IMPACT OF PRECIPITATION ON THE TROPICAL OCEAN: APPLICATION TO TRMM 08/09/1994 – 08/14/1997 FY98: \$0 Total: \$269,728 <i>Prin. Invest.:</i> P J WEBSTER, J A CURRY <i>Tech. Officer:</i> GSFC/W CHAO <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NAG 5 2256 UNIVERSITY OF COLORADO – BOULDER 3147 GLOBAL-SCALE TURBULENT SOLAR CONVECTION COUPLED TO ROTATION AND MAGNETIC FIELDS 04/27/1993 – 04/30/1999 FY98: \$250,000 Total: \$1,405,000 <i>Prin. Invest.:</i> J TOOMRE <i>Tech. Officer:</i> GSFC/T J BIRMINGHAM, GSFC/J D BOHLIN <i>CASE Category:</i> 13 – PHYSICS</p> | <p>NAG 5 2681 UNIVERSITY OF COLORADO – BOULDER 3154 SAMPEX DATA ANALYSIS 08/08/1994 – 02/28/1998 FY98: \$0 Total: \$427,186 <i>Prin. Invest.:</i> D N BAKER <i>Tech. Officer:</i> GSFC/J A SLAVIN <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NAG 5 2259 UNIVERSITY OF COLORADO – BOULDER 3148 CONTEMPORANEOUS EUVE AND GHR OBSERVATIONS OF THE OUTER ATMOSPHERIC STRUCTURE OF RS CVN . . . 04/30/1993 – 04/30/1999 FY98: \$0 Total: \$144,037 <i>Prin. Invest.:</i> A BROWN <i>Tech. Officer:</i> GSFC/R OLIVERSEN <i>CASE Category:</i> 11 – ASTRONOMY</p> | <p>NAG 5 2750 UNIVERSITY OF COLORADO – BOULDER 3155 1)THE DYNAMIC CORONAE OF ACTIVE DME STARS; 2)THE MYTH OF TWO-TEMPERATURE OF CORONAE ACTIVE STARTS 10/05/1994 – 04/14/1997 FY98: -\$200 Total: \$48,069 <i>Prin. Invest.:</i> J LINSKY <i>Tech. Officer:</i> GSFC/N WHITE <i>CASE Category:</i> 11 – ASTRONOMY</p> |
| <p>NAG 5 2287 UNIVERSITY OF COLORADO – BOULDER 3149 RELATIONSHIP BETWEEN NON-METHANE HYDROCARBON EMISSION AND LEAF CARBON BALANCE IN THE BOREAL FOREST. 06/14/1993 – 06/14/1998 FY98: \$0 Total: \$212,600 <i>Prin. Invest.:</i> R K MONSON <i>Tech. Officer:</i> GSFC/F G HALL, GSFC/P SELLERS <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER</p> | <p>NAG 5 2753 UNIVERSITY OF COLORADO – BOULDER 3156 UNDERSTANDING THE LATITUDE STRUCTURE OF NITRIC OXIDE IN THE MESOSPHERE AND LOWER THERMOSPHERE 10/14/1994 – 10/14/1997 FY98: -\$694 Total: \$238,139 <i>Prin. Invest.:</i> T J FULLER-ROWELL <i>Tech. Officer:</i> GSFC/C H JACKMAN <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NAG 5 2786 UNIVERSITY OF COLORADO – BOULDER 3157 STUDIES OF TIDAL AND PLANETARY WAVE VARIABILITY IN THE MIDDLE ATMOSPHERE USING UARS AND CORRELATIVE 11/14/1994 – 11/14/1997 FY98: \$0 Total: \$156,000 <i>Prin. Invest.:</i> D C FRITTS <i>Tech. Officer:</i> GSFC/C H JACKMAN <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> | |

NAG 5 2797 UNIVERSITY OF COLORADO - BOULDER **3158**
DYNAMICS OF LARGE SCALE STRUCTURE FROM REDSHIFT SP ACE
 11/18/1994 - 11/30/1998 FY98: \$32,500 Total: \$167,500
Prin. Invest.: A J HAMILTON
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2828 UNIVERSITY OF COLORADO - BOULDER **3159**
ASTEROSEISMOLOGY OF WHITE DWARF STARS
 12/07/1994 - 12/14/1997 FY98: \$0 Total: \$54,486
Prin. Invest.: C HANSEN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2891 UNIVERSITY OF COLORADO - BOULDER **3160**
DEBUNKING THE MYTH OF TWO-TEMPERATURE CORONAE FOR RS CVN
SYSTEMS USING CONTEMPRANEOUS HIGH
 02/17/1995 - 08/31/1998 FY98: \$0 Total: \$86,200
Prin. Invest.: J L LINSKY
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 2977 UNIVERSITY OF COLORADO - BOULDER **3161**
ABSOLUTE GRAVITY/GPS MEASUREMENTS IN GREENLAND
 06/16/1995 - 06/30/1998 FY98: \$0 Total: \$132,769
Prin. Invest.: J WAHR, K LARSON
Tech. Officer: GSFC/H J ZWALLY
CASE Category: 11 - ASTRONOMY

NAG 5 3006 UNIVERSITY OF COLORADO - BOULDER **3162**
UV SPECTRA OF ACTIVE GALAXIES FORMATION AND GALAXY EVOLUTION
 07/14/1995 - 07/31/1997 FY98: \$0 Total: \$95,057
Prin. Invest.: J W SHULL
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3007 UNIVERSITY OF COLORADO - BOULDER **3163**
SYSTEMATIC ANALYSIS OF COOL STELLAR WINDS EXTRACT- ING THE
COSMOLOGICAL PARAMETERS
 07/26/1995 - 07/31/1997 FY98: \$0 Total: \$47,568
Prin. Invest.: J L LINSKY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3032 UNIVERSITY OF COLORADO - BOULDER **3164**
DO WE NEED REALISTIC MODELING OF COMPOSITE INTERSTELLAR DUST
GRAINS
 10/02/1995 - 10/14/1996 FY98: -\$3 Total: \$73,997
Prin. Invest.: G C CLAYTON
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3033 UNIVERSITY OF COLORADO - BOULDER **3165**
REALISTIC YET PRACTICAL NLTE RADIATIVE TRANSFER FOR MODELING
STELLAR WINDS
 10/02/1995 - 10/14/1998 FY98: \$0 Total: \$62,300
Prin. Invest.: P D BENNETT
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3038 UNIVERSITY OF COLORADO - BOULDER **3166**
GROUND-BASED SOLAR OBSERVATIONS IN SUPPORT OF SOHO
 07/31/1995 - 08/14/1997 FY98: -\$1,367 Total: \$68,633
Prin. Invest.: A KIF LINGER
Tech. Officer: GSFC/A I POLAND
CASE Category: 11 - ASTRONOMY

NAG 5 3054 UNIVERSITY OF COLORADO - BOULDER **3167**
AIRBORNE LASER ALTIMETRIC MONITORING OF THE RAPID EVOLUTION
OF TOPOGRAPHY IN THE LONG VALLEY, CA CAL
 08/21/1995 - 08/31/1998 FY98: \$35,695 Total: \$95,695
Prin. Invest.: J B FUNDLE
Tech. Officer: GSFC/H V FREY
CASE Category: 9 - PHYSICAL SCIENCE, OTHER

NAG 5 3072 UNIVERSITY OF COLORADO - BOULDER **3168**
FRACTURE MORPHOLOGY AND NEOTECTONICS OF THE AFAR DEPRES-
SION
 09/25/1995 - 09/30/1997 FY98: \$0 Total: \$26,180
Prin. Invest.: R BI HAM
Tech. Officer: GSFC/D J HARDING
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3133 UNIVERSITY OF COLORADO - BOULDER **3169**
THE IMPACT OF SN1987A WITH ITS CIRCUMSTELLAR RING
 10/24/1995 - 10/31/1997 FY98: \$0 Total: \$303,000
Prin. Invest.: R A MCCRAY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3143 UNIVERSITY OF COLORADO - BOULDER **3170**
TEMPORAL VARIATIONS OF THE GEOPOTENTIAL
 11/09/1995 - 11/31/1998 FY98: \$0 Total: \$225,000
Prin. Invest.: J WAHR
Tech. Officer: GSFC/P T TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3152 UNIVERSITY OF COLORADO - BOULDER **3171**
CHARACTERIZ NG AND QUANTIFYING THE X-RAY VARIABLE SKY: FROM
ROSAT TO XTE AND BEYOND
 02/13/1996 - 06/30/1998 FY98: \$0 Total: \$53,641
Prin. Invest.: G S STRINGFELLOW
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3153 UNIVERSITY OF COLORADO - BOULDER **3172**
QUIESCENT CORONAL STRUCTURE AND VARIABILITY AT THE BOTTOM
OF THE MAIN SEQUENCE: THE SINGLE STAR CN.
 02/06/1996 - 09/30/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: G S STRINGFELLOW
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3161 UNIVERSITY OF COLORADO - BOULDER **3173**
X-RAY SPECTRA OF DISTANT GALAXY CLUSTER
 02/26/1996 - 06/31/1997 FY98: \$0 Total: \$818
Prin. Invest.: E ELLINGSON
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

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| <p>NAG 5 3179 UNIVERSITY OF COLORADO – BOULDER 3174 A STUDY OF THE UPPER ATMOSPHERIC RESPONSE TO VARIATIONS IN SOLAR ULTRAVIOLET IRRADIANCE 03/11/1996 – 09/30/1998 FY98: \$34,189 Total: \$205,054 Prin. Invest.: J LONDON Tech. Officer: GSFC/C H JACKMAN CASE Category: 31 – ATMOSPHERIC SCIENCE</p> | <p>NAG 5 3320 UNIVERSITY OF COLORADO – BOULDER 3182 LASER ALTIMETRY OF FOLDS CAUSED BY LARGE EARTHQUAKES 07/30/1996 – 08/14/1998 FY98: \$0 Total: \$20,000 Prin. Invest.: K MUELLER Tech. Officer: GSFC/H V FREY CASE Category: 32 – GEOLOGICAL SCIENCE</p> |
| <p>NAG 5 3190 UNIVERSITY OF COLORADO – BOULDER 3175 GAPPERS AND CLUMPERS CONTINUED 03/29/1996 – 03/31/1997 FY98: -\$201 Total: \$39,798 Prin. Invest.: T R AYRES Tech. Officer: GSFC/R OLIVERSEN CASE Category: 11 – ASTRONOMY</p> | <p>NAG 5 3327 UNIVERSITY OF COLORADO – BOULDER 3183 HERTZSPRUNG-GAP CORONAE: HOW HOT AND VARIABLE? 07/30/1996 – 01/31/1998 FY98: \$0 Total: \$29,116 Prin. Invest.: T AYRES Tech. Officer: GSFC/N WHITE CASE Category: 11 – ASTRONOMY</p> |
| <p>NAG 5 3194 UNIVERSITY OF COLORADO – BOULDER 3176 SUPPORT FOR ARCHIVING STANDARDS ACTIVITIES 04/12/1996 – 04/14/1997 FY98: \$0 Total: \$27,399 Prin. Invest.: R DAVIS Tech. Officer: GSFC/D SAWYER CASE Category: 99 – MULTI INTERDISCIPLINARY, OTHER</p> | <p>NAG 5 3383 UNIVERSITY OF COLORADO – BOULDER 3184 PROBING CORONAL FLARE ENERGISTICS: XTE OBSERVATIONS OF NEARBY FLARE STARS 08/30/1996 – 02/28/1998 FY98: \$0 Total: \$21,025 Prin. Invest.: J LINSKY Tech. Officer: GSFC/J SWANK CASE Category: 12 – CHEMISTRY</p> |
| <p>NAG 5 3224 UNIVERSITY OF COLORADO – BOULDER 3177 X-RAY EMISSION FROM PRE-MAIN SEQUENCE STARS-TESTING THE SOLAR ANALOGY 05/07/1996 – 05/14/1999 FY98: \$86,700 Total: \$247,676 Prin. Invest.: S L SKINNER Tech. Officer: GSFC/D WEST CASE Category: 11 – ASTRONOMY</p> | <p>NAG 5 3394 UNIVERSITY OF COLORADO – BOULDER 3185 CHARACTERIZING AND QUANTIFYING THE X-RAY VARIABLE SKY 09/06/1996 – 09/14/1998 FY98: \$68,399 Total: \$134,188 Prin. Invest.: G S STRINGFELLOW Tech. Officer: GSFC/D WEST CASE Category: 11 – ASTRONOMY</p> |
| <p>NAG 5 3225 UNIVERSITY OF COLORADO – BOULDER 3178 SPECTRAL AND TEMPORAL PROPERTIES OF BLACK HOLE CANDIDATES 05/07/1996 – 04/30/1999 FY98: \$168,000 Total: \$238,000 Prin. Invest.: M A NOWAK Tech. Officer: GSFC/D WEST CASE Category: 11 – ASTRONOMY</p> | <p>NAG 5 3421 UNIVERSITY OF COLORADO – BOULDER 3186 A SEARCH FOR CORONAL EMISSION IN THE LOWEST MASS STARS AND ROTATIONAL-ACTIVITY RELATE 09/15/1996 – 09/14/1997 FY98: \$0 Total: \$27,227 Prin. Invest.: G S STRINGFELLOW Tech. Officer: GSFC/R OLIVERSEN CASE Category: 11 – ASTRONOMY</p> |
| <p>NAG 5 3226 UNIVERSITY OF COLORADO – BOULDER 3179 THE FUNDAMENTAL PHYSICAL PROCESSES PRODUCING AND CONTROLLING STELLAR CORONAL/TRANSITION 05/07/1996 – 04/30/1999 FY98: \$277,000 Total: \$407,000 Prin. Invest.: T A AYRES Tech. Officer: GSFC/D WEST CASE Category: 11 – ASTRONOMY</p> | <p>NAG 5 3437 UNIVERSITY OF COLORADO – BOULDER 3187 LAND AND LAND-USE CHANGE IN THE CLIMATE SENSITIVE HIGH PLAINS: AN AUTOMATED APPROACH WITH LANDSAT 10/07/1996 – 10/31/1998 FY98: \$182,412 Total: \$426,560 Prin. Invest.: A GOETZ Tech. Officer: GSFC/D L WILLIAMS CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 5 3227 UNIVERSITY OF COLORADO – BOULDER 3180 INFRARED LINE EMISSION FROM MOLECULAR GAS HEATED BY X-RAYS AND ENERGETIC ELECTRONS 05/08/1996 – 04/30/1997 FY98: \$0 Total: \$165,000 Prin. Invest.: P R MALONEY Tech. Officer: GSFC/D WEST CASE Category: 11 – ASTRONOMY</p> | <p>NAG 5 3438 UNIVERSITY OF COLORADO – BOULDER 3188 ENHANCED ANTARCTIC RESEARCH WITH LANDSAT: ICE SHEET DYNAMICS, HISTORY AND CARTOGRAPHY 10/07/1996 – 10/31/1998 FY98: \$57,270 Total: \$144,679 Prin. Invest.: T SCAMBOS Tech. Officer: GSFC/D L WILLIAMS CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 5 3310 UNIVERSITY OF COLORADO – BOULDER 3181 X-RAY VARIABILITY CONSTRAINTS ON COMPTON CLOUD MODELS OF CYGNUS X-1 07/24/1996 – 08/14/1998 FY98: \$0 Total: \$13,842 Prin. Invest.: M A NOWAK Tech. Officer: GSFC/J SWANK CASE Category: 11 – ASTRONOMY</p> | <p>NAG 5 3514 UNIVERSITY OF COLORADO – BOULDER 3189 LEARNING ABOUT JET PHYSICS FROM GAMMA-RAY BLAZARS 11/13/1996 – 11/14/1997 FY98: \$0 Total: \$20,000 Prin. Invest.: M C BEGELMAN Tech. Officer: GSFC/J P NORRIS CASE Category: 11 – ASTRONOMY</p> |

NAG 5 3543 UNIVERSITY OF COLORADO - BOULDER **3190**
PULSATION, SHOCKS, MARS LOSS AND DUST: ATMOSPHERE S OF LONG PERIOD VARIABLES
 11/27/1996 - 06/30/1997 FY98: \$0 Total: \$103,400
Prin. Invest.: J BALLY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3708 UNIVERSITY OF COLORADO - BOULDER **3191**
MICROGRAVITY EXPERIMENT ON LOW VELOCITY IMPACTS
 12/05/1996 - 07/31/1997 FY98: \$0 Total: \$68,000
Prin. Invest.: J COLWELL
Tech. Officer: GSFC/B CARPENTER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3763 UNIVERSITY OF COLORADO - BOULDER **3192**
REMOTE SENSING OF PLANETARY SURFACES
 02/21/1997 - 01/31/1999 FY98: \$58,923 Total: \$99,923
Prin. Invest.: B M JAKOSKY
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3794 UNIVERSITY OF COLORADO - BOULDER **3193**
LIQUID CRYSTAL FOCAL-PLANE SHUTTERS
 03/25/1997 - 07/31/1999 FY98: \$29,583 Total: \$53,024
Prin. Invest.: P T STOCKE
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 3847 UNIVERSITY OF COLORADO - BOULDER **3194**
MAPPING RICE PRODUCTION IN CHINA WITH AVHRR IMAGER
 01/30/1997 - 01/31/1999 FY98: \$125,000 Total: \$235,171
Prin. Invest.: W EMERY
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3848 UNIVERSITY OF COLORADO - BOULDER **3195**
COLLABORATIVE RESEARCH: SCALING THEORIES OF THE 3- OF RIVER NETWORKS
 02/07/1997 - 09/30/1999 FY98: \$0 Total: \$152,000
Prin. Invest.: V K GUPTA
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3949 UNIVERSITY OF COLORADO - BOULDER **3196**
LOWER IONOSPHERE THERMOSPHERE EXPLORER
 02/21/1997 - 02/14/1999 FY98: \$0 Total: \$199,777
Prin. Invest.: D C SOLOMON
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 3967 UNIVERSITY OF COLORADO - BOULDER **3197**
INTEGRATED ANALYSIS OF COLUMELLA CELL STRUCTURE AN
 03/03/1997 - 02/28/1999 FY98: \$69,731 Total: \$197,933
Prin. Invest.: A STAEHLIN
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3981 UNIVERSITY OF COLORADO - BOULDER **3198**
THE VALIDATION AND APPLICATION OF SEA SURFACE TEMP FROM SPACE
 03/03/1997 - 04/31/1998 FY98: \$0 Total: \$129,000
Prin. Invest.: D EMERY
Tech. Officer: GSFC/B DOUGLAS
CASE Category: 13 - OCEANOGRAPHY

NAG 5 3997 UNIVERSITY OF COLORADO - BOULDER **3199**
WAVELET-BASED INTERPOLATION AND REPRESENTATION OF SPACE-CRAFT MISSION DATA
 03/13/1997 - 02/23/1999 FY98: \$67,000 Total: \$132,000
Prin. Invest.: D M ETTER
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4061 UNIVERSITY OF COLORADO - BOULDER **3200**
WARPING AND PRECESSION OF ACCRETION DISKS IN XRAY
 03/18/1997 - 03/31/1999 FY98: \$90,500 Total: \$177,500
Prin. Invest.: M C BEGELMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4063 UNIVERSITY OF COLORADO - BOULDER **3201**
ASTROPHYSICS AT THE DISK-HALO INTERFACE
 03/18/1997 - 03/31/1999 FY98: \$97,800 Total: \$191,100
Prin. Invest.: M J SHULL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4095 UNIVERSITY OF COLORADO - BOULDER **3202**
EVENT RATE FOR LISA GRAVITATIONAL WAVE SIGNALS FROM BLACK HOLE COALESCENCE S
 03/12/1997 - 03/31/1999 FY98: \$31,600 Total: \$62,000
Prin. Invest.: D L BENDER
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4099 UNIVERSITY OF COLORADO - BOULDER **3203**
NONLINEAR WAVES AND PARTICLE HEATING IN THE AURORA
 06/27/1997 - 05/31/1999 FY98: \$15,833 Total: \$90,833
Prin. Invest.: D GOLDMAN
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4100 UNIVERSITY OF COLORADO - BOULDER **3204**
LAST YEAR OF FUNDING FOR USERC PROGRAM AT UNIV. OF TRUCTION (CONTINUATION OF NAGW-1388) FOR 6 STUDEN
 03/11/1997 - 10/31/1998 FY98: \$0 Total: \$33,500
Prin. Invest.: R S U
Tech. Officer: GSFC/R AVANT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4119 UNIVERSITY OF COLORADO - BOULDER **3205**
GENERATION AND APPLICATION OF AVHRR-DERIVED ICE MO AND ANT-ARCTIC
 03/03/1997 - 02/28/1998 FY98: \$0 Total: \$90,000
Prin. Invest.: D MASLANIK
Tech. Officer: GSFC/R H THOMAS
CASE Category: 11 - ASTRONOMY

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| <p>NAG 5 4163 UNIVERSITY OF COLORADO – BOULDER 3206 DYNAMICAL MODELS OF THE SOLAR SYSTEM FORMATION AND 03/26/1997 – 02/28/1999 FY98: \$42,000 Total: \$80,000 <i>Prin. Invest.:</i> D R STEWART <i>Tech. Officer:</i> GSFC/P ROGERS <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE</p> | <p>NAG 5 4312 UNIVERSITY OF COLORADO – BOULDER 3214 ORIGINS CONFERENCE-1997 04/18/1997 – 12/31/1998 FY98: \$23,000 Total: \$43,000 <i>Prin. Invest.:</i> D M SHULL <i>Tech. Officer:</i> GSFC/H THRONSON <i>CASE Category:</i> 11 – ASTRONOMY</p> |
| <p>NAG 5 4171 UNIVERSITY OF COLORADO – BOULDER 3207 COLLABORATIVE RESEARCH: CLIMATE SENSITIVITY OF THAW LAKE SYS- TEMS ON THE ALASKAN NORTH SLOPE 03/17/1997 – 03/14/1999 FY98: \$50,471 Total: \$99,470 <i>Prin. Invest.:</i> D ZHANG <i>Tech. Officer:</i> GSFC/R H THOMAS <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER</p> | <p>NAG 5 4314 UNIVERSITY OF COLORADO – BOULDER 3215 LABORATORY STUDIES OF LOW TEMPERATURE RATE COEFFIC CHEM- ISTRY OF THE OUTER PLANETS 04/16/1997 – 12/31/1998 FY98: \$107,014 Total: \$294,098 <i>Prin. Invest.:</i> D R LEONE <i>Tech. Officer:</i> GSFC/D BOGAN <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NAG 5 4179 UNIVERSITY OF COLORADO – BOULDER 3208 VARIABLE ICE-SHEET DISCHARGE AND COASTAL CHANGE IN WEST ANTARCTICA 03/19/1997 – 12/31/1998 FY98: \$20,261 Total: \$33,419 <i>Prin. Invest.:</i> T SCAMBOS <i>Tech. Officer:</i> GSFC/R H THOMAS <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER</p> | <p>NAG 5 4343 UNIVERSITY OF COLORADO – BOULDER 3216 DUST PLASMA INTERACTION 04/17/1997 – 05/14/1999 FY98: \$30,525 Total: \$106,825 <i>Prin. Invest.:</i> D HORANYI <i>Tech. Officer:</i> GSFC/J BOHLIN <i>CASE Category:</i> 13 – PHYSICS</p> |
| <p>NAG 5 4183 UNIVERSITY OF COLORADO – BOULDER 3209 STUDIES OF SOLAR FLARE AND INTERPLANETARY PARTICLE DINATION OF GROUND-BASED SOLAROBSERVATIONS IN SU 03/17/1997 – 01/31/1998 FY98: \$0 Total: \$56,000 <i>Prin. Invest.:</i> D KIPLINGER <i>Tech. Officer:</i> GSFC/W WAGNER <i>CASE Category:</i> 13 – PHYSICS</p> | <p>NAG 5 4422 UNIVERSITY OF COLORADO – BOULDER 3217 CORDINATED XTE OBSERVATIONS OF CORONAL STRUCTURE A CVN BINARY SIGMA CRB 05/06/1997 – 04/30/1999 FY98: \$0 Total: \$15,305 <i>Prin. Invest.:</i> A BROWN <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 – ASTRONOMY</p> |
| <p>NAG 5 4184 UNIVERSITY OF COLORADO – BOULDER 3210 LABORATORY STUDIES OF THE VISIBLE SPECTROSCOPY & C IN THE GAS PHASE 03/17/1997 – 12/31/1998 FY98: \$0 Total: \$80,000 <i>Prin. Invest.:</i> D P SNOW <i>Tech. Officer:</i> GSFC/H HASAN <i>CASE Category:</i> 11 – ASTRONOMY</p> | <p>NAG 5 4440 UNIVERSITY OF COLORADO – BOULDER 3218 RADARSAT ANTARACTIC MAPPING PROJECT 05/13/1997 – 06/30/1999 FY98: \$9,923 Total: \$18,242 <i>Prin. Invest.:</i> R G BARRY <i>Tech. Officer:</i> GSFC/S GOGINENI <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 5 4218 UNIVERSITY OF COLORADO – BOULDER 3211 SEA ICE AND OCEAN PROCESSES IN BAFFIN BAY: A STUD DATA AND NUMERICAL MODELING 04/15/1997 – 02/28/1999 FY98: \$64,830 Total: \$154,260 <i>Prin. Invest.:</i> D STEFFEN <i>Tech. Officer:</i> GSFC/R H THOMAS <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER</p> | <p>NAG 5 4446 UNIVERSITY OF COLORADO – BOULDER 3219 THE DIURNAL CYCLE OF CONVECTION AND ITS INTERACTIO CIRCULA- TION 04/28/1997 – 06/30/1998 FY98: \$0 Total: \$100,000 <i>Prin. Invest.:</i> D ; SALBY <i>Tech. Officer:</i> GSFC/R A SCHIFFER <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NAG 5 4248 UNIVERSITY OF COLORADO – BOULDER 3212 GREENLAND ICE SHEET CLIMATOLOGY AND SURFACE ENERGY GREEN- LAND CLIMATE NETWORK (GCNET) 03/26/1997 – 03/31/1999 FY98: \$152,972 Total: \$408,031 <i>Prin. Invest.:</i> D STEFFEN <i>Tech. Officer:</i> GSFC/R THOMAS <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER</p> | <p>NAG 5 4447 UNIVERSITY OF COLORADO – BOULDER 3220 UNDERSTANDING VARIABILITY IN THE AVIRIS-DERIVED PA VEGETATION CANOPIES 04/25/1997 – 08/31/1999 FY98: \$166,082 Total: \$338,659 <i>Prin. Invest.:</i> A GOETZ <i>Tech. Officer:</i> GSFC/D E WICKLAND <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 5 4263 UNIVERSITY OF COLORADO – BOULDER 3213 SIMULATION AND THEORY OF THE FARLEY-BUNEMAN INSTAB ION- OSPHERE 04/07/1997 – 04/14/2000 FY98: \$0 Total: \$69,807 <i>Prin. Invest.:</i> D OPPENHEIM <i>Tech. Officer:</i> GSFC/M M MELLOTT <i>CASE Category:</i> 13 – PHYSICS</p> | <p>NAG 5 4459 UNIVERSITY OF COLORADO – BOULDER 3221 FORMATION OF THE MOON FROM AN IMPACT GENERATED DEB 06/27/1997 – 09/30/1998 FY98: \$0 Total: \$53,000 <i>Prin. Invest.:</i> D CANUP <i>Tech. Officer:</i> GSFC/J BOYCE <i>CASE Category:</i> 11 – ASTRONOMY</p> |

NAG 5 4467 UNIVERSITY OF COLORADO - BOULDER **3222**
NATURAL OSCILLATIONS OF THE THERMOSPHERE-IONOSPHERE
 05/27/1997 - 04/30/2001 FY98: \$71,090 Total: \$137,721
Prin. Invest.: P FORBES
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4477 UNIVERSITY OF COLORADO - BOULDER **3223**
SOFT X-RAY, OPTICAL-POLARIMETRIC, SOONSPOT AND MICRO NTERPLA-
NETARY PROTON ASSOCIATED FLARES AND ACTIVE
 06/02/1997 - 05/31/1999 FY98: \$25,390 Total: \$88,807
Prin. Invest.: D KIPLINGER
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 4506 UNIVERSITY OF COLORADO - BOULDER **3224**
PROPOSAL FOR COLLABORATION ON THE DEVELOPMENT AND AMSR
SNOW WATER EQUIVALENT ALGORITHM
 05/07/1997 - 04/30/1999 FY98: \$40,000 Total: \$91,604
Prin. Invest.: R L ARMSTRONG
Tech. Officer: GSFC/A T CHANG
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4518 UNIVERSITY OF COLORADO - BOULDER **3225**
THE NATURE OF "PASSIVE" ELLIPTICAL GALAXIES; A SEA LUMINOSITY
BL LACERTAE OBJECTS; VARIABILITY OF BL
 07/03/1997 - 06/30/1999 FY98: \$0 Total: \$14,600
Prin. Invest.: J T STOCKE
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4526 UNIVERSITY OF COLORADO - BOULDER **3226**
CHARGED PARTICULATES IN THE POLAR MESOSPHERE/INSTR
 05/07/1997 - 05/31/2000 FY98: \$31,250 Total: \$106,250
Prin. Invest.: D ROBERTSON
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4530 UNIVERSITY OF COLORADO - BOULDER **3227**
EVOLUTION OF BIOGENIC ELEMENTS ON MARS
 05/09/1997 - 03/31/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: D M JAKOSKY
Tech. Officer: GSFC/M MEYER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4561 UNIVERSITY OF COLORADO - BOULDER **3228**
A SEARCH FOR SMALL COMETS WITH IMAGES FROM THE MSX SPACE-
CRAFT
 10/31/1997 - 06/30/1998 FY98: \$31,700 Total: \$31,700
Prin. Invest.: D BRANDT
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 4580 UNIVERSITY OF COLORADO - BOULDER **3229**
A LOW COST MERCURY ORBITER MISSION
 05/13/1997 - 03/31/1999 FY98: \$0 Total: \$41,000
Prin. Invest.: P N BAKER
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 4615 UNIVERSITY OF COLORADO - BOULDER **3230**
SATELLITE ATMOSPHERE AND IO TORUS OBSERVATIONS
 05/20/1997 - 05/14/1999 FY98: \$58,333 Total: \$128,333
Prin. Invest.: D M SCHNEIDER
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4700 UNIVERSITY OF COLORADO - BOULDER **3231**
CHONDRULE FORMATION DUST GAS PLASMA INTERACTIONS
 06/11/1997 - 05/31/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: D HO RANYI
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4731 UNIVERSITY OF COLORADO - BOULDER **3232**
SPECTRAL AND DYNAMICAL SIGNATURES OF BLACK HOLE HI
 06/04/1997 - 02/21/1999 FY98: \$0 Total: \$20,442
Prin. Invest.: M BEGELMAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4735 UNIVERSITY OF COLORADO - BOULDER **3233**
ACTIVITY ON THE EDGE OF CONVECTION: THE ATMOSPHERE \$17,478 AND
LINKING THE IMPULSIVE AND GRADUAL PHA
 06/04/1997 - 06/14/1999 FY98: \$0 Total: \$32,904
Prin. Invest.: A BROWN
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 4737 UNIVERSITY OF COLORADO - BOULDER **3234**
LONG TERM MONITORING OF THE UNIQUE BLACK HOLE CAND
 06/04/1997 - 03/31/1999 FY98: \$0 Total: \$13,263
Prin. Invest.: M BEGELMAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4781 UNIVERSITY OF COLORADO - BOULDER **3235**
GALAXY CLUSTERS AT INTERMEDIATE REDSHIFTS
 06/20/1997 - 06/10/1998 FY98: \$0 Total: \$8,900
Prin. Invest.: E E LINGSON
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4782 UNIVERSITY OF COLORADO - BOULDER **3236**
THE CORONA OF THE REMARKABLE HERTZSPRUNG-GAP GIANT
 06/20/1997 - 06/30/1998 FY98: \$0 Total: \$19,000
Prin. Invest.: T R AYERS
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 4783 UNIVERSITY OF COLORADO - BOULDER **3237**
COORDINATED ASCA OBSERVATIONS OF CORONAL STRUCTURE CVN
BINARY SIGMA CRB
 06/20/1997 - 06/30/1999 FY98: \$0 Total: \$17,800
Prin. Invest.: A E BROWN
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 4784 UNIVERSITY OF COLORADO – BOULDER **3238**
X-RAY EMISSION FROM PROTOSTELLAR JETS
 06/18/1997 – 06/30/1998 FY98: \$0 Total: \$5,100
Prin. Invest.: J MORSE
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 4786 UNIVERSITY OF COLORADO – BOULDER **3239**
A SEARCH FOR CORONAL EMISSION AT THE BOTTOM OF THE
 06/23/1997 – 06/30/1998 FY98: \$0 Total: \$4,600
Prin. Invest.: G S STRINGFELLOW
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 4804 UNIVERSITY OF COLORADO – BOULDER **3240**
A UNIFIED ANALYSIS OF NON-RADIATIVE HEATING AND WI
 07/30/1997 – 07/31/1999 FY98: \$103,300 Total: \$181,600
Prin. Invest.: G HARPER
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4896 UNIVERSITY OF COLORADO – BOULDER **3241**
ANALYZING THE LOSS, ENERGIZATION, AND TRANSPORT OF IN THE MAG-
NETOSPHERE
 06/24/1997 – 07/14/1999 FY98: \$23,625 Total: \$101,625
Prin. Invest.: D LI
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 – PHYSICS

NAG 5 4901 UNIVERSITY OF COLORADO – BOULDER **3242**
DOCUMENTING, UNDERSTANDING, AND PREDICTING THE AGG RADIATION
FLUX FOR SHEBA
 06/19/1997 – 12/14/1999 FY98: \$100,000 Total: \$184,507
Prin. Invest.: D CURRY
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4906 UNIVERSITY OF COLORADO – BOULDER **3243**
GENERATION AT LEVEL 3 SSMR AND SSM/I BRIGHTNESS TE PERIOD 1978
– 1998
 06/19/1997 – 05/31/1999 FY98: \$70,128 Total: \$220,129
Prin. Invest.: D ARMSTRONG
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4907 UNIVERSITY OF COLORADO – BOULDER **3244**
POLAR-WIDE GEOPHYSICAL PRODUCTS DERIVED FROM AVHRR
 06/20/1997 – 03/31/1999 FY98: \$59,061 Total: \$202,236
Prin. Invest.: D MASLANIK
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4918 UNIVERSITY OF COLORADO – BOULDER **3245**
PENETRATIVE DYNAMICS OF THE SOLAR INTERIOR
 07/07/1997 – 05/31/1999 FY98: \$34,197 Total: \$129,151
Prin. Invest.: D JULIEN
Tech. Officer: GSFC/W G WAGNER
CASE Category: 13 – PHYSICS

NAG 5 4932 UNIVERSITY OF COLORADO – BOULDER **3246**
A COMPREHENSIVE ANALYSIS OF IO'S ATMOSPHERE AND TO
 06/26/1997 – 06/30/1998 FY98: \$0 Total: \$45,000
Prin. Invest.: D M SCHNEIDER
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4982 UNIVERSITY OF COLORADO – BOULDER **3247**
INVESTIGATION INTO THE PROPERTIES AND EVOLUTION OF OUDS OF
VENUS
 08/04/1997 – 07/14/1999 FY98: \$72,500 Total: \$142,500
Prin. Invest.: D GRINSPOON
Tech. Officer: GSFC/S HOWARD
CASE Category: 13 – PHYSICS

NAG 5 5020 UNIVERSITY OF COLORADO – BOULDER **3248**
HIGH RESOLUTION X-RAY SPECTROSCOPY FROM SOUNDING ROCKETS
 03/11/1994 – 10/31/1998 FY98: \$390,285 Total: \$1,307,990
Prin. Invest.: W C CASH
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 – PHYSICS

NAG 5 5021 UNIVERSITY OF COLORADO – BOULDER **3249**
SOLAR IRRADIANCE AND THERMOSPHERIC AIRGLOW ROCKET EXPERI-
MENTS
 04/04/1994 – 05/31/1998 FY98: \$0 Total: \$190,001
Prin. Invest.: S C SOLOMON
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 – PHYSICS

NAG 5 5027 UNIVERSITY OF COLORADO – BOULDER **3250**
ENERGY TRANSFER IN THE THERMOSPHERE AND MESOSPHERE FUND-
ING FOR A ONE-YEAR EFFORT IN BASIC RESEARCH
 03/03/1995 – 02/28/1999 FY98: -\$55,120 Total: \$194,148
Prin. Invest.: S SOLOMON
Tech. Officer: GSFC/L EARLY
CASE Category: 13 – PHYSICS

NAG 5 5028 UNIVERSITY OF COLORADO – BOULDER **3251**
TIDES, PLANETARY WAVES, AND EDDY FORCING OF THE MEAN MLT CIR-
CULATION FOR THE TIMED SCIENCE...
 03/03/1995 – 02/28/1999 FY98: \$84,000 Total: \$430,341
Prin. Invest.: J FORBES
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 – PHYSICS

NAG 5 5029 UNIVERSITY OF COLORADO – BOULDER **3252**
A THEORETICAL & OBSERVATIONAL STUDY OF LARGE & SMALL SCALE
DYNAMICS IN THE MESOSCALE & LOWER...
 03/03/1995 – 06/30/1998 FY98: \$15,000 Total: \$150,000
Prin. Invest.: D FRITTS
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 – PHYSICS

NAG 5 5090 UNIVERSITY OF COLORADO – BOULDER **3253**
EUV AND FUV OBSERVATIONS OF HALE-BOPP
 10/23/1996 – 10/31/1998 FY98: \$0 Total: \$35,183
Prin. Invest.: J C GREEN
Tech. Officer: GSFC/L W GURKIN
CASE Category: 13 – PHYSICS

NAG 5 5096 UNIVERSITY OF COLORADO – BOULDER **3254**
HIGH RESOLUTION SPECTROSCOPY IN THE FAR AND EXTREME ULTRAVIOLET
 12/02/1996 – 11/30/1998 FY98: \$319,990 Total: \$923,000
Prin. Invest.: J GREEN
Tech. Officer: GSFC/W JOHNSON
CASE Category: 13 – PHYSICS

NAG 5 5120 UNIVERSITY OF COLORADO – BOULDER **3255**
SOLAR EUV EXPERIMENT FOR THE NASA TIMED MISSION EXTENSION OF PHASE B
 02/06/1997 – 08/31/1998 FY98: \$0 Total: \$120,000
Prin. Invest.: T N WOODS
Tech. Officer: GSFC/B J FLOWERS
CASE Category: 13 – PHYSICS

NAG 5 5141 UNIVERSITY OF COLORADO – BOULDER **3256**
AIRGLOW ROCKET
 04/25/1997 – 03/31/1999 FY98: \$5,000 Total: \$60,000
Prin. Invest.: T WOODS
Tech. Officer: GSFC/W JOHNSON
CASE Category: 13 – PHYSICS

NAG 5 5168 UNIVERSITY OF COLORADO – BOULDER **3257**
ANALYSIS OF TIME DEPENDENT FAULT INTERACTIONS AND CALIFORNIA
 07/17/1997 – 07/14/1999 FY98: \$80,000 Total: \$153,922
Prin. Invest.: J B RUNDLE, NONE
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 6006 UNIVERSITY OF COLORADO – BOULDER **3258**
3RD YR RENEWAL "MODELING, MONITORING AND FAULT DIA AIR CON-TAMINANTS
 07/23/1997 – 12/31/1998 FY98: \$0 Total: \$119,231
Prin. Invest.: W RAMIREZ
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 6048 UNIVERSITY OF COLORADO – BOULDER **3259**
LATE STAGES OF ACCRETION OF URANUS AND NEPTUNE
 07/25/1997 – 06/30/1999 FY98: \$37,500 Total: \$67,070
Prin. Invest.: D STEWART
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 6051 UNIVERSITY OF COLORADO – BOULDER **3260**
ASSESSING FUTURE STABILITY OF US HIGH PLAINS LANDC PROCESS MODELING WITH LANDSAT IN SITU MODERN, AND
 07/28/1997 – 06/30/2000 FY98: \$195,000 Total: \$465,000
Prin. Invest.: D OVERPECK
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6114 UNIVERSITY OF COLORADO – BOULDER **3261**
GEOSTATISTICAL METHODS FOR DETERMINATION OF ROUGHN HANGES OF ANTARCTIC ICE STREAMS FROM SAR AND RADA
 07/28/1997 – 04/30/1999 FY98: \$0 Total: \$70,000
Prin. Invest.: U HERZFELD
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6124 UNIVERSITY OF COLORADO – BOULDER **3262**
THE SOLAR-STELLAR CONNECTION
 08/11/1997 – 07/1/1998 FY98: \$0 Total: \$40,500
Prin. Invest.: D R AYRES
Tech. Officer: GS/C/W J WAGNER
CASE Category: 13 – PHYSICS

NAG 5 6133 UNIVERSITY OF COLORADO – BOULDER **3263**
DYNAMICAL AND CHEMICAL BEHAVIOR OF THE STRATOSPHER
 08/11/1997 – 09/10/1999 FY98: \$0 Total: \$45,000
Prin. Invest.: D L SALBY
Tech. Officer: GS/C/J A KAYE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6134 UNIVERSITY OF COLORADO – BOULDER **3264**
QUANTIFYING GRASSLAND-TO-WOODLAND TRANSITIONS AND CARBON AND NITROGEN DYNAMICS IN THE SOUTHWEST UNIT
 09/08/1997 – 01/1/1999 FY98: \$206,250 Total: \$481,250
Prin. Invest.: D A WESSMAN
Tech. Officer: GS/C/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6138 UNIVERSITY OF COLORADO – BOULDER **3265**
LUNAR DUST: EROSION AND TRANSPORT
 09/04/1997 – 08/31/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: D H BRANDYI
Tech. Officer: HQ J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 6146 UNIVERSITY OF COLORADO – BOULDER **3266**
TO STUDY LAM POINTING REQUIRMENTS FOR THE GLAS SCI OBJECTIVES (HEK 717/97)
 08/21/1997 – 08/1/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: G BORN
Tech. Officer: GS/C/G F SMITH
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG 5 6147 UNIVERSITY OF COLORADO – BOULDER **3267**
VARIATIONS IN GPS TIME SERIES: A STUDY OF HYDROLO
 08/21/1997 – 08/1/1999 FY98: \$71,000 Total: \$150,526
Prin. Invest.: K LARSON
Tech. Officer: GS/C/H FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 6162 UNIVERSITY OF COLORADO – BOULDER **3268**
EARTHWORKS EDUCATING TEACHERS IN EARTH SYSTEM SCIE
 08/01/1997 – 07/1/1999 FY98: \$19,783 Total: \$38,115
Prin. Invest.: H SIETZLER
Tech. Officer: GS/C/N KHAZENIE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6198 UNIVERSITY OF COLORADO – BOULDER **3269**
MODELING SUBSTORM DYNAMICS WITH A LOW-DIMENSIONAL E SPACE SYSTEM
 08/20/1997 – 05/1/1999 FY98: \$25,674 Total: \$85,125
Prin. Invest.: D DIXAS, NONE
Tech. Officer: GS/C/J BOHLIN
CASE Category: 13 – PHYSICS

NAG 5 6270 UNIVERSITY OF COLORADO – BOULDER **3270**
EVOLUTION AND ACTIVITY IN THE SOLAR CORONA: A COM CHRO-
MOSPHERIC STRUCTURES SEEN IN SOFT X-RAYS, WH
 08/21/1997 – 05/31/1999 FY98: \$33,966 Total: \$112,334
Prin. Invest.: D BAGENAL
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 6302 UNIVERSITY OF COLORADO – BOULDER **3271**
DYNAMICS OF PLANETESIMAL & THE KUIPER COMET BELT
 10/10/1997 – 12/31/1998 FY98: \$163,238 Total: \$163,238
Prin. Invest.: D R STEWART
Tech. Officer: HQ/M M BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 6337 UNIVERSITY OF COLORADO – BOULDER **3272**
X-RAY REPROCESSING IN ACTIVE GALACTIC NUCLEI
 10/30/1997 – 10/31/1998 FY98: \$105,400 Total: \$105,400
Prin. Invest.: M BEGELMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6371 UNIVERSITY OF COLORADO – BOULDER **3273**
SATELLITE REMOTE SENSING OF ECOSYSTEM STRUCTURAL A INTE-
GRATING SPECTRAL MIXTURE ANALYSIS AND BRDF I
 09/25/1997 – 10/31/1998 FY98: \$0 Total: \$115,000
Prin. Invest.: D A WESSMAN
Tech. Officer: GSFC/D WICKLAND
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6431 UNIVERSITY OF COLORADO – BOULDER **3274**
THE EVOLUTION OF THE MARTIAN ATMOSPHERE
 10/14/1997 – 06/30/1998 FY98: \$34,922 Total: \$34,922
Prin. Invest.: D JAKOSKY
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6462 UNIVERSITY OF COLORADO – BOULDER **3275**
VALIDATION STUDIES AND SENSITIVITY ANALYSES FOR RETRIEVALS OF
SNOW ALBEDO & SNOWCOVERED AREA FROM
 10/14/1997 – 09/30/1999 FY98: \$176,129 Total: \$176,129
Prin. Invest.: A NOLIN
Tech. Officer: GSFC/D STARR
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 6474 UNIVERSITY OF COLORADO – BOULDER **3276**
IMAGING INTERPLANETARY HYDROGEN WITH ULYSSES
 11/13/1997 – 10/31/1998 FY98: \$40,000 Total: \$40,000
Prin. Invest.: D PRYOR
Tech. Officer: GSFC/L LING
CASE Category: 11 – ASTRONOMY

NAG 5 6504 UNIVERSITY OF COLORADO – BOULDER **3277**
EARTH OBSERVING SYSTEM (EOS) IDS
 10/24/1997 – 10/31/1998 FY98: \$234,160 Total: \$234,160
Prin. Invest.: O TOON
Tech. Officer: GSFC/D RIND
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6521 UNIVERSITY OF COLORADO – BOULDER **3278**
IMPROVING THE ACCURACY OF SATELLITE SEA SURFACE TEMPERA-
TURE MEASUREMENTS BY EXPLICITLY ACCOUNTING F
 12/05/1997 – 09/30/1999 FY98: \$356,369 Total: \$356,369
Prin. Invest.: D EMERY
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6627 UNIVERSITY OF COLORADO – BOULDER **3279**
CYCLIC AND LONG TERM TRENDS IN THE MESOSPHERE
 11/18/1997 – 11/30/1998 FY98: \$123,906 Total: \$123,906
Prin. Invest.: D E THOMAS
Tech. Officer: GSFC/C JACKMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6629 UNIVERSITY OF COLORADO – BOULDER **3280**
STUDIES OF TROPICAL/MID-LATITUDE EXCHANGE USING UARS
OBSERVATIONS
 11/18/1997 – 11/30/1998 FY98: \$53,117 Total: \$53,117
Prin. Invest.: D AVALLONE
Tech. Officer: GSFC/A DOUGLASS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6636 UNIVERSITY OF COLORADO – BOULDER **3281**
PASSIVE MICROWAVE SNOW COVER ALGORITHM INTERCOMPARISON
AND VALIDATION
 11/18/1997 – 10/31/1999 FY98: \$199,895 Total: \$199,895
Prin. Invest.: D L ARMSTRONG
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6651 UNIVERSITY OF COLORADO – BOULDER **3282**
CENTERS OF EXCELLENCE IN APPLICATIONS OF REMOTE SENSING TO
REGIONAL AND GLOBAL INTEGRATED ENVIRONME
 12/11/1997 – 11/30/1998 FY98: \$216,908 Total: \$216,908
Prin. Invest.: A GOETZ
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6666 UNIVERSITY OF COLORADO – BOULDER **3283**
AVHRR-BASED POLAR PATHFINDER PRODUCTS – EVALUATION ,
ENHANCEMENT AND TRANSITION TO MODIS
 11/25/1997 – 11/30/1999 FY98: \$193,995 Total: \$193,995
Prin. Invest.: D FOWLER
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6683 UNIVERSITY OF COLORADO – BOULDER **3284**
MODELING AND ANALYSIS OF UARS DATA IN THE STRATOSPHERE,
MESOSPHERE, AND LOWER THERMOSPHERE
 12/08/1997 – 11/30/1998 FY98: \$30,000 Total: \$30,000
Prin. Invest.: S BAILEY
Tech. Officer: GSFC/C JACKMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6690 UNIVERSITY OF COLORADO – BOULDER **3285**
DIGGING FOR FOSSILS IN THE HERTZSPRUNG GAP
 12/03/1997 – 11/30/1998 FY98: \$11,840 Total: \$11,840
Prin. Invest.: T R AYRES
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 6708 UNIVERSITY OF COLORADO – BOULDER **3286**
EUV EMISSIONS FROM THE JUPITER SYSTEM
 12/16/1997 – 12/14/1998 FY98: \$9,920 Total: \$9,920
Prin. Invest.: D HALL
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 6725 UNIVERSITY OF COLORADO – BOULDER **3287**
IONOSPHERE DELAY CORRECTION FOR SINGLE-FREQUENCY RADAR ALTIMETRY
 12/16/1997 – 12/14/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: BORN
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6758 UNIVERSITY OF COLORADO – BOULDER **3288**
LABORATORY STUDIES OF THE VISIBLE SPECTROSCOPY AND CHEMISTRY OF POLYCYCLIC AROMATIC HYDROCARBON (PAH)
 12/24/1997 – 12/31/1998 FY98: \$47,000 Total: \$47,000
Prin. Invest.: T SNOW
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 6791 UNIVERSITY OF COLORADO – BOULDER **3289**
EXTRACTION OF TIDES AND PLANETARY WAVES FROM SATELLITE OBSERVATIONS
 02/17/1998 – 02/28/1999 FY98: \$43,791 Total: \$43,791
Prin. Invest.: S PALO
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 – ASTRONOMY

NAG 5 6820 UNIVERSITY OF COLORADO – BOULDER **3290**
ARCTIC REGIONAL SEA-ICE ANOMALIES: A DIAGNOSIS OF ICE-ATMOSPHERE OCEAN INTERACTIONS AND LINKAGES TO CLIMATE
 01/09/1998 – 12/31/1998 FY98: \$75,220 Total: \$75,220
Prin. Invest.: A LYNCH
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6850 UNIVERSITY OF COLORADO – BOULDER **3291**
UARS – SOLSTICE
 01/12/1998 – 12/14/1998 FY98: \$233,000 Total: \$233,000
Prin. Invest.: D ROTTMAN
Tech. Officer: GSFC/CJACKMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6875 UNIVERSITY OF COLORADO – BOULDER **3292**
ABSOLUTE GRAVITY/GPS MEASUREMENTS IN GREENLAND
 02/17/1998 – 12/31/1998 FY98: \$22,540 Total: \$22,540
Prin. Invest.: J WAHR
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6880 UNIVERSITY OF COLORADO – BOULDER **3293**
LASER INTERFEROMETRY TECHNIQUES FOR ACCURATE MEASUREMENT OF DISTANCE CHANGES BETWEEN WIDELY SEPARATED STARS
 02/17/1998 – 12/31/1998 FY98: \$80,000 Total: \$80,000
Prin. Invest.: R T STEBBINS
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 6900 UNIVERSITY OF COLORADO – BOULDER **3294**
INVESTIGATIONS OF CLOUDS AND AEROSOLS ON MARS AND VENUS
 01/21/1998 – 09/30/1998 FY98: \$72,000 Total: \$72,000
Prin. Invest.: O TOON
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 – ASTRONOMY

NAG 5 6901 UNIVERSITY OF COLORADO – BOULDER **3295**
CHROMOSPHERIC STRUCTURE AND WIND ACCELERATION IN ZETA AURIGAE STARS
 02/04/1998 – 02/14/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: P BENNETT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6909 UNIVERSITY OF COLORADO – BOULDER **3296**
EUV OBSERVATION OF THE JUPITER SYSTEM
 02/25/1998 – 09/30/1998 FY98: \$24,402 Total: \$24,402
Prin. Invest.: D HALL
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 6936 UNIVERSITY OF COLORADO – BOULDER **3297**
THE EVOLUTION AND X-RAY MORPHOLOGY OF DISTANT CLUSTERS OF GALAXIES
 02/04/1998 – 02/14/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: J T STOCKE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6984 UNIVERSITY OF COLORADO – BOULDER **3298**
MEDIUM ENERGY PARTICLE PRECIPITATION EFFECTS ON THE MESOSPHERE AND LOWER THERMOSPHERE
 02/27/1998 – 02/31/1999 FY98: \$72,111 Total: \$72,111
Prin. Invest.: M MODRESCU
Prin. Invest.: NONE
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 – ASTRONOMY

NAG 5 7020 UNIVERSITY OF COLORADO – BOULDER **3299**
TIME-RESOLVED SPECTROSCOPY OF ACTIVE BINARY STARS
 02/17/1998 – 02/14/1999 FY98: \$18,520 Total: \$18,520
Prin. Invest.: A BROWN
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 7021 UNIVERSITY OF COLORADO – BOULDER **3300**
SATELLITE REMOTE SENSING OF TROPICAL ICE CLOUDS AND PRECIPITATION FOR 3CM VERIFICATION
 03/19/1998 – 12/31/1999 FY98: \$97,981 Total: \$97,981
Prin. Invest.: D EVANS
Tech. Officer: GSFC/K H BERGMAN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7024 UNIVERSITY OF COLORADO – BOULDER **3301**
V1408 AQL: BLACK HOLE CANDIDATE OR NEUTRON STAR X-RAY BINARY? XTE PROPOSAL
 02/13/1998 – 02/14/1999 FY98: \$8,806 Total: \$8,806
Prin. Invest.: M C BEGELMAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

| | | | |
|----------------------------------------------------------|----------------------------------|------------------|---------------------------------------------------------------------------------------------------------------|
| NAG 5 7062 | UNIVERSITY OF COLORADO – BOULDER | 3302 | SOLAR AND INTERPLANETARY OPTICAL SUPPORT FOR SOHO |
| 02/24/1998 – 02/28/1999 | FY98: \$18,635 | Total: \$18,635 | |
| <i>Prin. Invest.:</i> A KIPLINGER | | | |
| <i>Tech. Officer:</i> GSFC/A POLAND | | | |
| <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | | | |
| NAG 5 7071 | UNIVERSITY OF COLORADO – BOULDER | 3303 | SMALL-SCALE POLYGONS AND THE HISTORY OF GROUND ICE ON MARS |
| 02/20/1998 – 02/14/2000 | FY98: \$58,800 | Total: \$58,800 | |
| <i>Prin. Invest.:</i> M T MELLON | | | |
| <i>Tech. Officer:</i> GSFC/P ROGERS | | | |
| <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE | | | |
| NAG 5 7088 | UNIVERSITY OF COLORADO – BOULDER | 3304 | MHD SIMULATIONS OF THE COUPLING BETWEEN IO AND JUPITER |
| 02/23/1998 – 03/31/1999 | FY98: \$44,333 | Total: \$44,333 | |
| <i>Prin. Invest.:</i> F BAGENAL | | | |
| <i>Tech. Officer:</i> GSFC/D EVANS | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAG 5 7112 | UNIVERSITY OF COLORADO – BOULDER | 3305 | SAMPEX DATA ANALYSIS |
| 03/25/1998 – 02/28/1999 | FY98: \$129,000 | Total: \$129,000 | |
| <i>Prin. Invest.:</i> D N BAKER | | | |
| <i>Tech. Officer:</i> GSFC/J A SLAVIN | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAG 5 7128 | UNIVERSITY OF COLORADO – BOULDER | 3306 | PRECISION MEASUREMENT OF LARGE SCALE STRUCTURE-ATP |
| 03/24/1998 – 02/14/1999 | FY98: \$40,000 | Total: \$40,000 | |
| <i>Prin. Invest.:</i> A J HAMILTON | | | |
| <i>Tech. Officer:</i> GSFC/D K WEST | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAG 5 7167 | UNIVERSITY OF COLORADO – BOULDER | 3307 | FORMATION OF THE MOON FROM AN IMPACT-GENERATED DEBRIS DISK |
| 03/16/1998 – 03/31/1999 | FY98: \$40,833 | Total: \$40,833 | |
| <i>Prin. Invest.:</i> R CANUP | | | |
| <i>Tech. Officer:</i> GSFC/J BOYCE | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAG 5 7190 | UNIVERSITY OF COLORADO – BOULDER | 3308 | LITHOSPHERIC DYNAMICS OF VENUS AND MARS |
| 04/09/1998 – 05/14/2000 | FY98: \$18,058 | Total: \$18,058 | |
| <i>Prin. Invest.:</i> R E GRIMM | | | |
| <i>Tech. Officer:</i> GSFC/P ROGERS | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAG 5 7223 | UNIVERSITY OF COLORADO – BOULDER | 3309 | A SEARCH FOR CORONAL EMISSION AT THE BOTTOM OF THE MAIN-SEQUENCE |
| 04/09/1998 – 04/14/1999 | FY98: \$9,920 | Total: \$9,920 | |
| <i>Prin. Invest.:</i> G S STRINGFELLOW | | | |
| <i>Tech. Officer:</i> GSFC/R J OLIVERSEN | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAG 5 7234 | UNIVERSITY OF COLORADO – BOULDER | 3310 | THE SOHO STELLAR CONNECTION |
| 04/08/1998 – 04/30/1999 | FY98: \$40,000 | Total: \$40,000 | |
| <i>Prin. Invest.:</i> T R AYRES | | | |
| <i>Tech. Officer:</i> GSFC/W WAGNER | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAG 5 7262 | UNIVERSITY OF COLORADO – BOULDER | 3311 | THE INTERGALACTIC MEDIUM AND QSO ABSORPTION SYSTEMS (LTSA – NEW) |
| 04/28/1998 – 04/30/1999 | FY98: \$100,000 | Total: \$100,000 | |
| <i>Prin. Invest.:</i> J SHULL | | | |
| <i>Tech. Officer:</i> GSFC/D K WEST | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAG 5 7329 | UNIVERSITY OF COLORADO – BOULDER | 3312 | XTE PROPOSAL – RXTE OBSERVATIONS OF M87: INVESTIGATING THE NON-THERMAL CONTINUUM |
| 04/24/1998 – 04/14/1999 | FY98: \$8,000 | Total: \$8,000 | |
| <i>Prin. Invest.:</i> C REYNOLDS | | | |
| <i>Tech. Officer:</i> GSFC/J SWANK | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAG 5 7339 | UNIVERSITY OF COLORADO – BOULDER | 3313 | XTE PROPOSAL – CYGNUS X-1: DIPS AND LOW FREQUENCY NOISE |
| 04/24/1998 – 04/30/1999 | FY98: \$8,667 | Total: \$8,667 | |
| <i>Prin. Invest.:</i> M BEGELMAN | | | |
| <i>Tech. Officer:</i> GSFC/J SWANK | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAG 5 7340 | UNIVERSITY OF COLORADO – BOULDER | 3314 | XTE PROPOSAL – LONG-TERM MONITORING OF THE BLACK HOLE CANDIDATES LMCX-1 AND LMC X-3 |
| 04/24/1998 – 04/30/1999 | FY98: \$8,333 | Total: \$8,333 | |
| <i>Prin. Invest.:</i> M BEGELMAN | | | |
| <i>Tech. Officer:</i> GSFC/J SWANK | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAG 5 7365 | UNIVERSITY OF COLORADO – BOULDER | 3315 | RELATIONSHIPS BETWEEN THE BULK-SKIN SEA SURFACE TEMPERATURE DIFFERENCE, WIND AND NET AIR-SEA HEAT FLUX |
| 04/29/1998 – 04/30/2001 | FY98: \$106,796 | Total: \$106,796 | |
| <i>Prin. Invest.:</i> W EMERY | | | |
| <i>Tech. Officer:</i> GSFC/E LINDSTROM | | | |
| <i>CASE Category:</i> 33 – OCEANOGRAPHY | | | |
| NAG 5 7398 | UNIVERSITY OF COLORADO – BOULDER | 3316 | XTE PROPOSAL – COORDINATED XTE OBSERVATIONS OF FLARES AND CORONAL STRUCTURE ON THE RS CVN BINARY |
| 05/13/1998 – 05/31/1999 | FY98: \$6,065 | Total: \$6,065 | |
| <i>Prin. Invest.:</i> A BROWN <i>Prin. Invest.:</i> NONE | | | |
| <i>Tech. Officer:</i> GSFC/J SWANK | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAG 5 7402 | UNIVERSITY OF COLORADO – BOULDER | 3317 | INTEGRATED USE OF EXPERIMENTAL MODELING & REMOTE SENSING TECHNIQUES TO INVESTIGATE CARBON ISOTOPE |
| 05/15/1998 – 11/30/1999 | FY98: \$201,537 | Total: \$201,537 | |
| <i>Prin. Invest.:</i> A TOWNSEND | | | |
| <i>Tech. Officer:</i> GSFC/D E WICKLAND | | | |
| <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER | | | |
| NAG 5 7449 | UNIVERSITY OF COLORADO – BOULDER | 3318 | RELATIONSHIPS BETWEEN INTERSTELLAR AND INTERPLANETARY GRAINS |
| 07/02/1998 – 06/30/2000 | FY98: \$26,000 | Total: \$26,000 | |
| <i>Prin. Invest.:</i> T P SNOW | | | |
| <i>Tech. Officer:</i> HQ/J BOYCE | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |

NAG 5 7466 UNIVERSITY OF COLORADO – BOULDER **3319**
AEROSOL-CLOUD-CLIMATE INTERACTIONS
 05/28/1998 – 05/31/1999 FY98: \$59,685 Total: \$59,685
Prin. Invest.: K STEFFEN
Tech. Officer: GSFC/J ZWALLY
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7496 UNIVERSITY OF COLORADO – BOULDER **3320**
EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND AND REGIONS
 06/29/1998 – 06/30/2001 FY98: \$113,327 Total: \$113,327
Prin. Invest.: A FREI
Tech. Officer: GSFC/ET ENGMAN
CASE Category: 11 – ASTRONOMY

NAG 5 7541 UNIVERSITY OF COLORADO – BOULDER **3321**
THE USE OF CASES OBSERVATIONS TO ASSESS AND PARAMETERIZE THE IMPACT OF LAND-SURFACE HETEROGENEITY ON
 06/18/1998 – 08/31/2001 FY98: \$100,351 Total: \$100,351
Prin. Invest.: D YATES
Tech. Officer: GSFC/ET ENGMAN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7543 UNIVERSITY OF COLORADO – BOULDER **3322**
INVESTIGATING DOWNSCALING METHODS AND EVALUATING CLIMATE MODELS FOR USE IN ESTIMATING REGIONAL WATER
 06/23/1998 – 07/31/2001 FY98: \$270,000 Total: \$270,000
Prin. Invest.: A FREI
Tech. Officer: GSFC/ET ENGMAN
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 7611 UNIVERSITY OF COLORADO – BOULDER **3323**
FOLLOW-ON STUDY FOR ICESAT SPACECRAFT POINTING PERIOD OF PERFORMANCE: 8/1/9
 07/22/1998 – 07/31/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: G BORN
Tech. Officer: GSFC/G SMITH
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG 5 7652 UNIVERSITY OF COLORADO – BOULDER **3324**
AN INVESTIGATION OF THE EFFECT OF PARTICLE IONIZATION ON THE EARTH'S MIDDLE ATMOSPHERE AND ITS R
 08/25/1998 – 09/30/2001 FY98: \$55,440 Total: \$55,440
Prin. Invest.: D RUSCH
Tech. Officer: HQ/D EVANS
CASE Category: 11 – ASTRONOMY

NAG 5 7679 UNIVERSITY OF COLORADO – BOULDER **3325**
CLOUD STRUCTURE RECONSTRUCTION AND SHORTWAVE RADIATIVE TRANSFER MODELING FOR ARMYEAR 1 OF A 3 YEAR
 09/17/1998 – 08/31/1999 FY98: \$43,000 Total: \$43,000
Prin. Invest.: K EVANS
Tech. Officer: GSFC/W WISCOMBE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7703 UNIVERSITY OF COLORADO – BOULDER **3326**
FUNDING FOR TEMPORAL VARIATIONS OF THE GEOPOTENTIAL (SENH98-0102)
 09/23/1998 – 03/31/1999 FY98: \$48,000 Total: \$48,000
Prin. Invest.: J N WAHR
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 7723 UNIVERSITY OF COLORADO – BOULDER **3327**
THE DISK WIND MODEL OF THE BROAD LINE REGIONS IN ACTIVE GALACTIC NUCLEI AND CATAclysmic VARI
 09/23/1998 – 09/30/2000 FY98: \$83,417 Total: \$83,417
Prin. Invest.: M J BEGELMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7725 UNIVERSITY OF COLORADO – BOULDER **3328**
MODEL PREDICTIONS OF INTERACTIONS BETWEEN SOLAR AND ANTHROPOGENIC PERTURBATIONS IN THE EARTH'S
 09/23/1998 – 09/30/2001 FY98: \$20,500 Total: \$20,500
Prin. Invest.: D RUSCH
Tech. Officer: GSFC/D EVANS
CASE Category: 11 – ASTRONOMY

NAG 8 1048 UNIVERSITY OF COLORADO – BOULDER **3329**
ULTRAVIOLET EXTINCTION AND POLARIZATION OF INTERSTELLAR DUST IN THE LARGE MAGELLANIC CLOUD
 03/15/1994 – 03/31/1999 FY98: \$0 Total: \$127,642
Prin. Invest.: G C CLAYTON, J GREEN
Tech. Officer: GSFC/J OWEN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 8 1093 UNIVERSITY OF COLORADO – BOULDER **3330**
ANALYSIS OF USAF DEFENSE METEOROLOGICAL SATELLITE PROGRAM DATA FOR GLOBAL LIGHTING
 11/16/1994 – 1/15/1998 FY98: \$0 Total: \$213,284
Prin. Invest.: G S SCHARFEN
Tech. Officer: MSFC/S J GOODMAN, MSFC/H J CHRISTIAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 8 1135 UNIVERSITY OF COLORADO – BOULDER **3331**
CERAMIC MATRIX COMPOSITES STUDY
 03/27/1995 – 09/29/1998 FY98: \$0 Total: \$227,760
Prin. Invest.: V J ROGERS
Tech. Officer: MSFC/S STOYANOF
CASE Category: 49 – ENGINEERING, OTHER

NAG 8 1165 UNIVERSITY OF COLORADO – BOULDER **3332**
PREPARATION & ANALYSIS OF RNA CRYSTALS
 09/22/1995 – 06/30/1998 FY98: \$105,000 Total: \$540,000
Prin. Invest.: F TODD, C KUNDROT, S SCHULTZ
Tech. Officer: GSFC/A D SHIELDS, GSFC/D C CARTER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 8 1306 UNIVERSITY OF COLORADO – BOULDER **3333**
COHERENT LIDAR DESIGN PERFORMANCE FOR SPACE MISSIONS
 09/18/1996 – 04/12/1999 FY98: \$67,513 Total: \$195,863
Prin. Invest.: H G FREHLICH
Tech. Officer: MSFC/S C JOHNSON, MSFC/B F JONES
CASE Category: 13 – PHYSICS

NAG 8 1446 UNIVERSITY OF COLORADO – BOULDER **3334**
FUNDAMENTAL PHYSICS USING FREQUENCY STABILIZED LASERS AS OPTICAL ATOMIC CLOCKS
 02/05/1998 – 01/31/2001 FY98: \$30,710 Total: \$30,710
Prin. Invest.: J HALL
Tech. Officer: MSFC/J POE
CASE Category: 13 – PHYSICS

NAG 8 1475 UNIVERSITY OF COLORADO – BOULDER **3335**
INFLUENCE OF SOLUTOCAPILLARY CONVECTION ON MACRO- VOID DEFECT FORMATION IN POLYMERIC MEMBRANES
 02/03/1998 – 01/31/2002 FY98: \$48,000 Total: \$48,000
Prin. Invest.: A GREENBERG
Tech. Officer: MSFC/J FRAIZER
CASE Category: 13 – PHYSICS

NAG 9 856 UNIVERSITY OF COLORADO – BOULDER **3336**
SUPPORT OF GPS ATTITUDE AND ANTENNA BASELINE ESTIMATION FOR SPACE STATION ALPHA
 11/09/1995 – 02/28/1998 FY98: \$0 Total: \$104,077
Prin. Invest.: D AXELRAD
Tech. Officer: JSC/P E SAUNDERS
CASE Category: 46 – MECHANICAL ENGR

NAG 9 868 UNIVERSITY OF COLORADO – BOULDER **3337**
BASIC RESEARCH IN ORBITAL DEBRIS DETECTION & ESTIMATION
 05/01/1996 – 10/31/1998 FY98: \$0 Total: \$10,000
Prin. Invest.: D D CULP
Tech. Officer: JSC/E STANSBERY
CASE Category: 11 – ASTRONOMY

NAGW 766 UNIVERSITY OF COLORADO – BOULDER **3338**
THEORY OF SPECTRA FORMATION IN ASTROPHYSICAL SYSTEMS
 07/15/1985 – 09/30/1997 FY98: \$0 Total: \$2,594,600
Prin. Invest.: J M SCHULL
Tech. Officer: HQ/G C CLAYTON, HQ/A N BUNNER
CASE Category: 11 – ASTRONOMY

NAGW 771 UNIVERSITY OF COLORADO – BOULDER **3339**
REMOTE SENSING ANALYSIS OF MARS
 06/01/1985 – 10/31/1996 FY98: -\$21 Total: \$439,384
Prin. Invest.: B JAKOSKY
Tech. Officer: HQ/J R UNDERWOOD, HQ/J M BOYCE
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 1110 UNIVERSITY OF COLORADO – BOULDER **3340**
ALGORITHM VALIDATION FOR ALONG TRACK SCANNING RADIOMETER
 06/01/1987 – 09/30/1997 FY98: \$0 Total: \$1,141,770
Prin. Invest.: W J EMERY
Tech. Officer: HQ/G S LAGERLOEF, HQ/W S WILSON
CASE Category: 33 – OCEANOGRAPHY

NAGW 1197 UNIVERSITY OF COLORADO – BOULDER **3341**
CENTER FOR THE COMMERCIAL DEVELOPMENT
 10/14/1987 – 09/30/1997 FY98: \$0 Total: \$14,736,646
Prin. Invest.: M LUTTGES, J BERRYMAN
Tech. Officer: HQ/W A ORAN, HQ/A VILLAMIL
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 1387 UNIVERSITY OF COLORADO – BOULDER **3342**
EVOLUTION OF LARGE SCALE PLASMA STRUCTURES IN COMETS
 08/04/1988 – 03/31/1997 FY98: -\$19 Total: \$454,648
Prin. Invest.: J C BRANDT
Tech. Officer: HQ/J H RAHE
CASE Category: 11 – ASTRONOMY

NAGW 1388 UNIVERSITY OF COLORADO – BOULDER **3343**
CENTER FOR SPACE CONSTRUCTION
 07/20/1988 – 09/30/1998 FY98: \$0 Total: \$10,190,042
Prin. Invest.: G W MORGANTHALER, S STURE
Tech. Officer: HQ/M S HIRSCHBEIN, HQ/S C HARTMAN
CASE Category: 49 – ENGINEERING, OTHER

NAGW 1462 UNIVERSITY OF COLORADO – BOULDER **3344**
MAX 91 COORDINATION & STUDIES OF SOLAR ACTIVITY
 10/05/1988 – 03/31/1997 FY98: \$0 Total: \$449,639
Prin. Invest.: A L KIPLINGER
Tech. Officer: HQ/J D BOHLIN, HQ/S KANE
CASE Category: 13 – PHYSICS

NAGW 2158 UNIVERSITY OF COLORADO – BOULDER **3345**
NAGW-2158/UNIV OF COLORADO/APPLICATION OF MULTISPECTRAL SATELLITE DATA IN POLAR SURFACE ENERGY FLUX
 07/13/1990 – 09/30/1997 FY98: -\$5 Total: \$1,199,615
Prin. Invest.: K STEFFEN
Tech. Officer: HQ/R H THOMAS, HQ/W S WILSON
CASE Category: 33 – OCEANOGRAPHY

NAGW 2248 UNIVERSITY OF COLORADO – BOULDER **3346**
NAGW-2248/UNIV COLORADO @ BOULDER/DYNAMICS OF PLANETESIMALS AND KUIPER COMET BELT
 03/11/1991 – 12/31/1996 FY98: -\$7 Total: \$341,864
Prin. Invest.: G R STEWART
Tech. Officer: HQ/J A NUTH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 2484 UNIVERSITY OF COLORADO – BOULDER **3347**
A COMPREHENSIVE ANALYSIS OF IO'S TORUS AND ATMOSPHERE
 05/23/1991 – 09/30/1997 FY98: \$0 Total: \$311,785
Prin. Invest.: N M SCHNEIDER
Tech. Officer: HQ/W QUAIDE
CASE Category: 11 – ASTRONOMY

NAGW 2492 UNIVERSITY OF COLORADO – BOULDER **3348**
IMAGING AND SPECTROSCOPY OF TITAN'S TOURS AND ATMOSPHERE
 07/25/1991 – 12/31/1997 FY98: \$0 Total: \$338,078
Prin. Invest.: N M SCHNEIDER
Tech. Officer: HQ/J H RAHE
CASE Category: 11 – ASTRONOMY

NAGW 2675 UNIVERSITY OF COLORADO – BOULDER **3349**
BL LACERTAE OBJECTS
 08/20/1991 – 09/30/1997 FY98: \$0 Total: \$432,900
Prin. Invest.: J T STOCKE
Tech. Officer: HQ/G S KUTTER, HQ/G R RIEGLER
CASE Category: 11 – ASTRONOMY

NAGW 2954 UNIVERSITY OF COLORADO - BOULDER **3350**
BIB PHOTOCONDUCTIVE MIXERS
 03/03/1992 - 09/30/1997 FY98: \$0 Total: \$396,000
Prin. Invest.: A L BETZ
Tech. Officer: HQ/L J CAROFF
CASE Category: 11 - ASTRONOMY

NAGW 3192 UNIVERSITY OF COLORADO - BOULDER **3351**
NAGW-3192/UNIV COLORADO/PULSATION, SHOCKS, MASS LOSS AND DUST: ATMOSPHERES OF LONGPERIOD VARIABLES
 09/17/1992 - 06/30/1997 FY98: \$0 Total: \$380,736
Prin. Invest.: E BRUGEL
Prin. Invest.: NONE
Tech. Officer: HQ/G R RIEGLER
CASE Category: 11 - ASTRONOMY

NAGW 3196 UNIVERSITY OF COLORADO - BOULDER **3352**
NAGW-3196/UNIV COLORADO/A DIRECTED SEARCH FOR EXTRATERRESTRIAL LASER SIGNALS
 08/21/1992 - 06/30/1997 FY98: \$0 Total: \$151,700
Prin. Invest.: A L BETZ
Tech. Officer: HQ/J D RUMMEL
CASE Category: 11 - ASTRONOMY

NAGW 3370 UNIVERSITY OF COLORADO - BOULDER **3353**
AN ULTRAVIOLET IMAGING SPECTROMETER FOR THE PLUTO/CHARO MISSION
 02/05/1993 - 12/31/1997 FY98: \$0 Total: \$389,179
Prin. Invest.: W A MCCLINTOCK
Tech. Officer: HQ/H C BRINTON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3437 UNIVERSITY OF COLORADO - BOULDER **3354**
ICE SUR. TEMP. RETR. FR. AVHRR, ATSR, AND PASS. MI CR. SATE. DATA;ALG. DEVE. AND APPL.
 03/10/1993 - 03/31/1997 FY98: -\$6,604 Total: \$251,084
Prin. Invest.: J KEY, J MASLANIK
Tech. Officer: HQ/R H THOMAS, HQ/R A SCHIFFER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3485 UNIVERSITY OF COLORADO - BOULDER **3355**
INVESTIGATION OF DYNAMICAL AND CHEMICAL BEHAVIOR OF THE LOWER STRATOSPHERE AND INTERACTIONS
 06/16/1993 - 09/30/1998 FY98: \$0 Total: \$385,000
Prin. Invest.: M L SALBY
Tech. Officer: HQ/J A KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 3530 UNIVERSITY OF COLORADO - BOULDER **3356**
AN INVES. OF THE MID. STR. OF GEO. STORM EFF. IN THE THEM. ION.
 04/22/1993 - 02/28/1997 FY98: -\$135 Total: \$188,628
Prin. Invest.: M CODRESCU
Tech. Officer: HQ/M M MELLOTT, HQ/G L WITHBROE
CASE Category: 13 - PHYSICS

NAGW 3584 UNIVERSITY OF COLORADO - BOULDER **3357**
THEORETICAL STUDIES OF THE DISTRIBUTION AND EVALUATION OF WATER IN THE ATMOSPHERE OF VENUS
 05/12/1993 - 09/30/1997 FY98: \$0 Total: \$220,000
Prin. Invest.: D H GRINSPOON
Tech. Officer: HQ/M C BRINTON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3600 UNIVERSITY OF COLORADO - BOULDER **3358**
COMPARISON OF INTERPLANETARY AND INTERSTELLAR GRAINS
 06/09/1993 - 09/30/1997 FY98: \$0 Total: \$66,586
Prin. Invest.: T F SNOW
Tech. Officer: HQ/J A NUTH III
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3790 UNIVERSITY OF COLORADO - BOULDER **3359**
GEOSTATISTICAL STRUCTURE ANALYSIS AND HIGH RESOLUTION MAPPING
 10/06/1993 - 09/30/1997 FY98: \$0 Total: \$210,655
Prin. Invest.: U G HERZFELD
Tech. Officer: HQ/R H THOMAS, HQ/J S THEON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3838 UNIVERSITY OF COLORADO - BOULDER **3360**
NAGW-3838/B UNIV. COLORADO: "WHAT DRIVES THE OUTFLOWS IN BROAD ABSORPTION LINE QSOs?"
 12/21/1993 - 09/30/1997 FY98: \$0 Total: \$90,000
Prin. Invest.: M J BEGELMAN
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 3887 UNIVERSITY OF COLORADO - BOULDER **3361**
UNIV COLORADO; GEOMETRY & GRAPHICS SOFTWARE FOR PLANETARY SCIENCE OBSERVATIONS
 03/03/1994 - 12/31/1996 FY98: -\$20 Total: \$187,236
Prin. Invest.: K I SIMMONS
Tech. Officer: HQ/G H MUCKLOW, HQ/J H BREDECAMP
CASE Category: 22 - COMPUTER SCIENCE

NAGW 3919 UNIVERSITY OF COLORADO - BOULDER **3362**
NAGW-3919/B UNIV. COLORADO/BOULDER "INTERNET ACCESS TO GOES AND GEOSAT AVHRR DATA" 24-MO MULTI YR AWR
 04/21/1994 - 03/31/1997 FY98: -\$554 Total: \$499,446
Prin. Invest.: W EMERY
Tech. Officer: HQ/J C DODGE, HQ/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 3961 UNIVERSITY OF COLORADO - BOULDER **3363**
DYNAMICAL MODELS OF SOLAR SYSTEM FORMATION AND EVOLUTION
 05/10/1994 - 02/28/1997 FY98: -\$3 Total: \$154,997
Prin. Invest.: G STEWART
Tech. Officer: HQ/R WILLIAMS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 4064 UNIVERSITY OF COLORADO - BOULDER **3364**
SUBARCSECOND IMAGING OF THE SOLAR CORONA IN THE 0.5-2.0 KEV BANDPASS
 07/21/1994 - 09/30/1997 FY98: \$0 Total: \$350,000
Prin. Invest.: D J GALLAGHER
Tech. Officer: HQ/W J WAGNER
CASE Category: 13 - PHYSICS

NAGW 4082 UNIVERSITY OF COLORADO - BOULDER **3365**
CHORULE FORMATION IN LIGHTNING
 07/14/1994 - 03/31/1997 FY98: \$0 Total: \$101,000
Prin. Invest.: M HORANYI
Tech. Officer: HQ/P ROGERS
CASE Category: 11 - ASTRONOMY

NAGW 4145 UNIVERSITY OF COLORADO – BOULDER **3366**
JME/SAC-D DEFINITION STUDY
 09/28/1994 – 09/30/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: N SCHNEIDER
Tech. Officer: HQ/E C WHIPPLE, HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4146 UNIVERSITY OF COLORADO – BOULDER **3367**
ESTIMATION AND ANALYSIS OF PRECIPITATION OVER THE TROPICAL PACIFIC
 09/28/1994 – 09/30/1997 FY98: \$0 Total: \$355,881
Prin. Invest.: S AVERY, J CURRY
Tech. Officer: HQ/J C DODGE, HQ/R A SCHIFFER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAGW 4267 UNIVERSITY OF COLORADO – BOULDER **3368**
LABORATORY STUDIES OF THE VISIBLE SPECTROSCOPY AND CHEMISTRY OF POLYCYCLIC AROMATIC HYDROCARBONS
 01/25/1995 – 09/30/1997 FY98: \$0 Total: \$160,000
Prin. Invest.: T SNOW
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 – ASTRONOMY

NAGW 4271 UNIVERSITY OF COLORADO – BOULDER **3369**
THE FABRICATION OF ULTRA-LIGHT HOLOGRAPHIC GRATING S
 01/31/1995 – 12/31/1997 FY98: \$0 Total: \$98,000
Prin. Invest.: J C GREEN
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 – ASTRONOMY

NAGW 4373 UNIVERSITY OF COLORADO – BOULDER **3370**
FORMATION OF THE MOON FROM AN IMPACT GENERATED DEBRIS DISK
 03/31/1995 – 03/31/1997 FY98: \$0 Total: \$90,727
Prin. Invest.: L ESPOSITO
Tech. Officer: HQ/P G ROGERS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAGW 4451 UNIVERSITY OF COLORADO – BOULDER **3371**
NATURAL OSCILLATIONS OF THE THERMOSPHERE IONOSPHERE SYSTEM
 04/28/1995 – 04/30/1998 FY98: \$0 Total: \$123,178
Prin. Invest.: J M FORBES
Tech. Officer: HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4453 UNIVERSITY OF COLORADO – BOULDER **3372**
NONLINEAR WAVES AND PARTICLE HEATING IN THE AURORAL IONOSPHERE
 04/28/1995 – 05/31/1997 FY98: \$0 Total: \$151,533
Prin. Invest.: M V GOLDMAN
Tech. Officer: HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4579 UNIVERSITY OF COLORADO – BOULDER **3373**
THE POPULATION OF SMALL COMETS: OPTIMUM TECHNIQUE S FOR DETECTION
 06/28/1995 – 02/28/1997 FY98: -\$5 Total: \$63,494
Prin. Invest.: J BRANDT
Tech. Officer: HQ/E BARKER
CASE Category: 11 – ASTRONOMY

NAGW 4585 UNIVERSITY OF COLORADO – BOULDER **3374**
MODELING MONITORING & FAULT DIAGNOSIS OF SPACECRAFT AIR CONTAMINANTS
 07/05/1995 – 09/30/1997 FY98: \$0 Total: \$225,673
Prin. Invest.: W F RAMIREZ
Tech. Officer: HQ/G SCHMIDT
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 4590 UNIVERSITY OF COLORADO – BOULDER **3375**
EXTERNALLY ILLUMINATED PROTO-PLANETARY DISKS
 07/12/1995 – 09/30/1997 FY98: \$0 Total: \$99,994
Prin. Invest.: J BALLY
Tech. Officer: HQ/P G ROGERS
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 4689 UNIVERSITY OF COLORADO – BOULDER **3376**
SATELLITE REMOTE SENSING OF ECOSYSTEM STRUCTURAL & FUNCTIONAL CHANGES: INTEGRATING SPECTRAL MIXTURE
 08/10/1995 – 09/30/1997 FY98: \$0 Total: \$215,000
Prin. Invest.: C WESSMAN
Tech. Officer: HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4725 UNIVERSITY OF COLORADO – BOULDER **3377**
THE INTERSTELLAR MEDIUM IN THREE DIMENSIONS
 08/28/1995 – 08/31/1997 FY98: -\$1 Total: \$34,136
Prin. Invest.: T P SNOW
Tech. Officer: HQ/R A STACHNIK
CASE Category: 11 – ASTRONOMY

NAGW 4742 UNIVERSITY OF COLORADO – BOULDER **3378**
POLAR GEOPHYSICAL PRODUCTS DERIVED FROM AVHRR
 09/08/1995 – 06/30/1997 FY98: \$0 Total: \$312,571
Prin. Invest.: J A MASLANIK
Tech. Officer: HQ/M E MAIDEN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4743 UNIVERSITY OF COLORADO – BOULDER **3379**
GENERATION OF LEVEL 3 SSM/I BRIGHTNESS TEMPERATURE S FOR THE PERIOD 1978-1988
 09/08/1995 – 06/30/1998 FY98: \$0 Total: \$270,001
Prin. Invest.: R L AMSTRONG
Tech. Officer: HQ/M E MAIDEN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4755 UNIVERSITY OF COLORADO – BOULDER **3380**
RADARSAT ANTARCTIC MAPPING PROJECT
 09/21/1995 – 06/30/1998 FY98: \$0 Total: \$15,857
Prin. Invest.: R BARRY, T SCAMBOS
Tech. Officer: HQ/M E MAIDEN, HQ/D M BUTLER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4803 UNIVERSITY OF COLORADO – BOULDER **3381**
NEXT GENERATION X-RAY OBSERVATORY
 10/18/1995 – 09/30/1997 FY98: \$0 Total: \$138,000
Prin. Invest.: W C CASH
Tech. Officer: HQ/M KAPLAN, HQ/D W WEEDMAN
CASE Category: 13 – PHYSICS

NAGW 4879 UNIVERSITY OF COLORADO – BOULDER **3382**
ANALYSIS OF LWIR OBSERVATIONS OF THE MOON FROM CLEMENTINE
 12/06/1995 – 10/31/1997 FY98: \$0 Total: \$86,000
Prin. Invest.: B M JAKOSKY
Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
CASE Category: 13 – PHYSICS

NAGW 4894 UNIVERSITY OF COLORADO – BOULDER **3383**
CLEMENTINE LONG-WAVE INFRARED (LWIR) CAMERA CALIBRATION
 01/22/1996 – 11/30/1997 FY98: \$0 Total: \$80,000
Prin. Invest.: J BOYCE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAGW 4978 UNIVERSITY OF COLORADO – BOULDER **3384**
SEA ICE AND OCEAN PROCESSES IN BAFFIN BAY: A STUDY USING RADARSAT DATA AND NUMERICAL MODELING
 03/01/1996 – 08/31/1997 FY98: -\$59 Total: \$85,923
Prin. Invest.: K STEFFEN
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 5044 UNIVERSITY OF COLORADO – BOULDER **3385**
CHARGED PARTICLES IN THE POLAR MESOSPHERE/ INSTRUMENT DEVELOPMENT
 05/06/1996 – 05/31/1997 FY98: \$0 Total: \$75,000
Prin. Invest.: S ROBERTSON
Tech. Officer: HQ/M M MELLOTT, HQ/G L WITHBROE
CASE Category: 33 – OCEANOGRAPHY

NAGW 5075 UNIVERSITY OF COLORADO – BOULDER **3386**
EVOLUTION AND ACTIVITY IN THE SOLAR CORONA: A COMPARISON OF CORONAL AND CHROMOSPHERIC STRUCTURES
 05/28/1996 – 09/30/1997 FY98: \$0 Total: \$74,170
Prin. Invest.: F BAGENAL
Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE
CASE Category: 13 – PHYSICS

NAGW 5085 UNIVERSITY OF COLORADO – BOULDER **3387**
UNDERSTANDING VARIABILITY IN THE AVIRIS-DERIVED PARAMETERS FROM VEGETATION CANOPIES
 05/28/1996 – 09/30/1997 FY98: -\$2,323 Total: \$166,535
Prin. Invest.: A H GOETZ
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 5097 UNIVERSITY OF COLORADO – BOULDER **3388**
LUNAR DUST: EROSION & TRANSPORT
 06/10/1996 – 12/31/1996 FY98: -\$32 Total: \$74,968
Prin. Invest.: M HORANYI
Tech. Officer: HQ/N NUTH, HQ/H C BRINTON
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 5192 UNIVERSITY OF COLORADO – BOULDER **3389**
SATELLITE REMOTE SENSING OF TROPICAL ICE CLOUDS AND PRECIPITATION FOR GCM VERIFICATION
 09/23/1996 – 06/30/1998 FY98: \$0 Total: \$103,624
Prin. Invest.: K F EVANS
Tech. Officer: HQ/K H BERGMAN, HQ/R C HARRISS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAGW 5253 UNIVERSITY OF COLORADO – BOULDER **3390**
AN INTEGRATED USE OF EXPERIMENTAL MODELING, AND REMOTE SENSING TECHNIQUES TO INVESTIGATE CARBON ISOTOPES
 11/07/1996 – 03/31/1998 FY98: \$0 Total: \$171,581
Prin. Invest.: A F TOWNSEND
Tech. Officer: HC/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAS 5 32392 UNIVERSITY OF COLORADO – BOULDER **3391**
OPERATION OF SNOW & ICE DISTRIBUTED ACTIVE ARCHIVE CENTER.
 04/19/1993 – 01/31/1998 FY98: \$383,963 Total: \$11,422,676
Prin. Invest.: R C BARRY
Tech. Officer: GSFC/G HUNOLT
CASE Category: 42 – ASTRONAUTICAL ENGR

NAS 5 97045 UNIVERSITY OF COLORADO – BOULDER **3392**
EXTENSION OF SOLSTICE PHASE B EFFORT
 02/21/1997 – 01/31/1999 FY98: \$2,886,840 Total: \$5,423,266
Prin. Invest.: G ROTTMAN
Tech. Officer: GSFC/V GRIFFIN
CASE Category: 42 – ASTRONAUTICAL ENGR

NAS 5 97046 UNIVERSITY OF COLORADO – BOULDER **3393**
LETTER CONTRACT FOR HIRDIS PHASE C/D/E
 01/17/1997 – 03/31/2008 FY98: \$22,446,000 Total: \$42,271,095
Prin. Invest.: J GALLE
Tech. Officer: GS/C/L MILAN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAS 5 97140 UNIVERSITY OF COLORADO – BOULDER **3394**
DATA ANALYSIS CEPPAD
 03/06/1997 – 09/30/1998 FY98: \$155,590 Total: \$350,000
Prin. Invest.: D BAKER
Tech. Officer: GS/C/R A HOFFMAN
CASE Category: 11 – ASTRONOMY

NAS 5 97145 UNIVERSITY OF COLORADO – BOULDER **3395**
MISSION OPERATIONS, DATA ANALYSIS, AND ALGORITHM MAINTENANCE FOR UARS SOLSTICE
 03/31/1997 – 11/30/1998 FY98: \$308,217 Total: \$757,715
Prin. Invest.: G J ROTTMAN
Tech. Officer: GS/C/C H JACKMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 5 98043 UNIVERSITY OF COLORADO – BOULDER **3396**
SCIENCE MANAGEMENT FOR COS
 03/04/1998 – 08/31/2003 FY98: \$835,000 Total: \$835,000
Prin. Invest.: J GFEEN
Tech. Officer: GS/C/L FEINBERG
CASE Category: 11 – ASTRONOMY

NAS 5 98070 UNIVERSITY OF COLORADO – BOULDER **3397**
OPERATION OF SNOW AND ICE DISTRIBUTED ACTIVE ARCHIVE
 01/29/1998 – 01/31/2003 FY98: \$2,550,000 Total: \$2,550,000
Prin. Invest.: R WEAVER, V TROISI
Tech. Officer: GS/C/M REPH
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAS 5 98160 UNIVERSITY OF COLORADO – BOULDER **3398**
TOTAL SOLAR IRRADIANCE MISSION (TSIM)
 07/22/1998 – 02/22/1999 FY98: \$1,408,712 Total: \$1,408,712
Prin. Invest.: G ROTHMAN
Tech. Officer: GSFC/N L GRIFFIN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 8 38779 UNIVERSITY OF COLORADO – BOULDER **3399**
MECHANICS OF GRANULAR MATERIALS MICROGRAVITY
 09/24/1992 – 01/31/1999 FY98: \$531,000 Total: \$2,613,905
Prin. Invest.: S STURE
Tech. Officer: MSFC/B GUYNES
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 1 281 UNIVERSITY OF COLORADO – BOULDER **3400**
NANOMECHANICS OF ACTIVELY CONTROLLED DEPLOYABLE OPTICS
 03/11/1998 – 03/10/1999 FY98: \$75,000 Total: \$75,000
Prin. Invest.: L D PETERSON
Tech. Officer: LARC/M S LAKE
CASE Category: 42 – ASTRONAUTICAL ENGR

NCC 2 904 UNIVERSITY OF COLORADO – BOULDER **3401**
**COMPREHENSION BASED ANALYSIS OF AUTOFLIGHT SYSTEM INTER-
 FACES**
 06/28/1995 – 10/31/1998 FY98: \$36,670 Total: \$241,969
Prin. Invest.: P G POLSON, NONE
Tech. Officer: ARC/E A PALMER, ARC/M SHAFTO
CASE Category: 49 – ENGINEERING, OTHER

NCC 2 1052 UNIVERSITY OF COLORADO – BOULDER **3402**
CENTER FOR ASTROBIOLOGY
 08/28/1998 – 06/30/2003 FY98: \$105,000 Total: \$105,000
Prin. Invest.: B JAKOSKI
Tech. Officer: ARC/J CUZZI
CASE Category: 59 – LIFE SCIENCE, OTHER

NCC 2 5258 UNIVERSITY OF COLORADO – BOULDER **3403**
**RESEARCH ON SYSTEM TECHNOLOGIES AND MASS FLOW CHARACTER-
 ISTICS IN A CLOSED PLANT GROWTH FACILITY**
 03/04/1998 – 09/30/1998 FY98: \$60,000 Total: \$60,000
Prin. Invest.: A HOEHN
Tech. Officer: ARC/M H KLISS
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NCC 2 5290 UNIVERSITY OF COLORADO – BOULDER **3404**
**INTEGRATION & SUPPORT OF NIH-B1 DROSOPHILA MELANOGASTER
 NEURAL DEVELOPMENT EXPERIMENT ON SHUTTLE...**
 08/20/1998 – 10/31/1998 FY98: \$10,000 Total: \$10,000
Prin. Invest.: L STODIECK
Tech. Officer: ARC/D REISS-BUBENHEIM, ARC/P D SAVAGE
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NCC 8 131 UNIVERSITY OF COLORADO – BOULDER **3405**
BIONERVE SPACE TECHNOLOGIES
 01/31/1997 – 10/31/1998 FY98: \$1,780,000 Total: \$4,005,000
Prin. Invest.: G MORGENTHAUER
Tech. Officer: MSFC/S J LAMBING
CASE Category: 59 – LIFE SCIENCE, OTHER

NCC 9 65 UNIVERSITY OF COLORADO – BOULDER **3406**
SPACE STATION BASED MIRON ACURACY DEPLOYMENT EXPERIMENT
 07/01/1997 – 10/31/1998 FY98: \$275,000 Total: \$365,362
Prin. Invest.: L PETERSON
Tech. Officer: JSC/C PARRA
CASE Category: 41 – AERONAUTICAL ENGR

NGT 30175 UNIVERSITY OF COLORADO – BOULDER **3407**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/23/1993 – 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: A F GOETZ
Tech. Officer: HQ/G ASRAR, HQ/D M BUTLER
CASE Category: 32 – GEOLOGICAL SCIENCE

NGT 30207 UNIVERSITY OF COLORADO – BOULDER **3408**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/23/1993 – 08/31/1997 FY98: -\$17 Total: \$65,983
Prin. Invest.: G H BORN
Tech. Officer: HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30210 UNIVERSITY OF COLORADO – BOULDER **3409**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/23/1993 – 05/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: R K MONSON
Tech. Officer: HQ/G ASRAR, HQ/D M BUTLER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30261 UNIVERSITY OF COLORADO – BOULDER **3410**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/29/1994 – 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J COLE
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 33 – OCEANOGRAPHY

NGT 30265 UNIVERSITY OF COLORADO – BOULDER **3411**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/29/1994 – 08/31/1997 FY98: -\$38 Total: \$65,962
Prin. Invest.: V VAIDA
Tech. Officer: HQ/R A SCHIFFER, HQ/G ASRAR
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 30266 UNIVERSITY OF COLORADO – BOULDER **3412**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/29/1994 – 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: D WALKER
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30285 UNIVERSITY OF COLORADO – BOULDER **3413**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/29/1994 – 08/31/1997 FY98: -\$1,884 Total: \$64,116
Prin. Invest.: J A CURRY
Tech. Officer: HQ/J S THEON, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30322 UNIVERSITY OF COLORADO – BOULDER **3414**
GLOBAL CHANGE FELLOWSHIP
 08/31/1995 – 08/31/1997 FY98: -\$1 Total: \$43,999
Prin. Invest.: J OVERPECK
Tech. Officer: HQ/G ASRAR, HQ/M BALTUCK
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30353 UNIVERSITY OF COLORADO – BOULDER **3415**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/31/1995 – 08/31/1998 FY98: -\$4 Total: \$43,996
Prin. Invest.: M A TOLBERT
Tech. Officer: HQ/R A SCHIFFER, HQ/G ASRAR
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 40008 UNIVERSITY OF COLORADO – BOULDER **3416**
NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM
 10/19/1989 – 01/31/1998 FY98: \$0 Total: \$2,773,666
Prin. Invest.: E R HANSEN
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 51040 UNIVERSITY OF COLORADO – BOULDER **3417**
GRADUATE STUDENT RESEARCHERS PROGRAM
 05/05/1993 – 12/31/1997 FY98: -\$1,487 Total: \$86,513
Prin. Invest.: R R LEBEN
Tech. Officer: JPL/C HIX
CASE Category: 41 – AERONAUTICAL ENGR

NGT 51135 UNIVERSITY OF COLORADO – BOULDER **3418**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/19/1993 – 01/31/1997 FY98: -\$28 Total: \$65,972
Prin. Invest.: M A TOLBERT
Tech. Officer: HQ/G LESANE
CASE Category: 12 – CHEMISTRY

NGT 51224 UNIVERSITY OF COLORADO – BOULDER **3419**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/26/1994 – 12/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: M A TOLBERT
Tech. Officer: HQ/A NOVOTNY
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 51291 UNIVERSITY OF COLORADO – BOULDER **3420**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/28/1994 – 09/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J STOCKE
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 – ASTRONOMY

NGT 51294 UNIVERSITY OF COLORADO – BOULDER **3421**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/26/1994 – 08/31/1997 FY98: -\$50 Total: \$65,950
Prin. Invest.: D H GRINSPOON
Tech. Officer: ARC/M MOORE
CASE Category: 11 – ASTRONOMY

NGT 51297 UNIVERSITY OF COLORADO – BOULDER **3422**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/28/1994 – 12/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: G W MORGENTHAUER
Tech. Officer: HQ/D HOLLAND
CASE Category: 41 – AERONAUTICAL ENGR

NGT 51373 UNIVERSITY OF COLORADO – BOULDER **3423**
GRADUATE STUDENT RESEARCHERS PROGRAM
 05/30/1995 – 06/30/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: R LEBEN
Tech. Officer: HQ/A NOVOTNY
CASE Category: 42 – ASTRONAUTICAL ENGR

NGT 51380 UNIVERSITY OF COLORADO – BOULDER **3424**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/06/1995 – 09/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: T P SNOW
Tech. Officer: HC /D HOLLAND
CASE Category: 11 – ASTRONOMY

NGT 51415 UNIVERSITY OF COLORADO – BOULDER **3425**
GSRP
 08/29/1995 – 08/31/1998 FY98: -\$1 Total: \$43,999
Prin. Invest.: M TOLBERT
Tech. Officer: HC /A NOVOTNY
CASE Category: 12 – CHEMISTRY

NGT 51420 UNIVERSITY OF COLORADO – BOULDER **3426**
GSRP
 09/16/1995 – 11/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: R S E
Tech. Officer: JPL/C HIX
CASE Category: 45 – ELECTRICAL ENGR

NGT 51421 UNIVERSITY OF COLORADO – BOULDER **3427**
GRADUATE STUDENT RESEARCHERS PROGRAM
 09/13/1995 – 08/31/1997 FY98: -\$2 Total: \$43,998
Prin. Invest.: P T JDD
Tech. Officer: HC/G LESANE
CASE Category: 41 – AERONAUTICAL ENGR

NGT 51642 UNIVERSITY OF COLORADO – BOULDER **3428**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/08/1996 – 09/30/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: E Z VEIBEL
Tech. Officer: HC/D HOLLAND
CASE Category: 13 – PHYSICS

NGT 70389 UNIVERSITY OF COLORADO – BOULDER **3429**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 08/23/1994 – 06/30/1997 FY98: -\$17,755 Total: \$92,245
Prin. Invest.: R D CULP
Tech. Officer: HQ/D K RUSSELL
CASE Category: 33 – OCEANOGRAPHY

NGT 1 52134 UNIVERSITY OF COLORADO – BOULDER **3430**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/18/1996 – 06/30/1998 FY98: \$12,001 Total: \$44,001
Prin. Invest.: R W MILLER
Tech. Officer: LAIC/G J BRAUKMANN, LARC/J W PAULSON
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52139 UNIVERSITY OF COLORADO – BOULDER **3431**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/26/1996 – 06/30/1998 FY98: \$12,000 Total: \$44,000
Prin. Invest.: K S CRUMPTON
Tech. Officer: LAIC/D J KATZBERG, LARC/H R KOWITZ
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52151 UNIVERSITY OF COLORADO – BOULDER **3432**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 10/03/1996 – 08/31/1997 FY98: -\$179 Total: \$21,821
Prin. Invest.: A R MICKELSON
Tech. Officer: LAIC/P A GELHAUSEN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 2 52234 UNIVERSITY OF COLORADO – BOULDER **3433**
A STRUCTURAL ANALYSIS APPROACH TO EXAMINING THE EFFECTS OF DISUSE OSEOPOROSIS
 08/26/1997 – 07/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: S J SIMSKE
Tech. Officer: ARC/R T WHALEN
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NGT 3 52306 UNIVERSITY OF COLORADO – BOULDER **3434**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/31/1995 – 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: R H DAVIS
Tech. Officer: LERC/L SHAW
CASE Category: 43 – CHEMICAL ENGR

NGT 5 5 UNIVERSITY OF COLORADO – BOULDER **3435**
TIDAL WAVELENGTHS FROM ALONG TRACK ALTIMETRY AND IMPLICATIONS FOR GRIDDING TIDAL SOLUTIONS
 06/22/1995 – 06/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: G H BORN
Tech. Officer: GSFC/G A SOFFEN, GSFC/R S NEREM
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 38 UNIVERSITY OF COLORADO – BOULDER **3436**
THIS AGREEMENT PROVIDES LAST YEAR OF FUNDING FOR U CENTER FOR SPACE CONTRUCTION GRADUATES.
 05/05/1997 – 10/31/1997 FY98: \$0 Total: \$124,666
Prin. Invest.: R SU
Tech. Officer: GSFC/R AVANT
CASE Category: 49 – ENGINEERING, OTHER

NGT 5 47 UNIVERSITY OF COLORADO – BOULDER **3437**
INVESTIGATION OF HARDWARE AND ALGORITHM ARCHITECTU GEO AND HEO ORBITS
 06/23/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: P AXELRAD
Tech. Officer: GSFC/M S BURRELL
CASE Category: 46 – MECHANICAL ENGR

NGT 5 49 UNIVERSITY OF COLORADO – BOULDER **3438**
OUTER ELECTRON BELT MODELING BY ASSIMILATION OF RE DATA
 06/23/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: D N BAKER
Tech. Officer: GSFC/M S BURRELL
CASE Category: 11 – ASTRONOMY

NGT 5 74 UNIVERSITY OF COLORADO – BOULDER **3439**
GSRP TRAINING GRANT FOR ELLEN RIDDLE. TITLE: USE OF OPTIMIZATIONMETHODS IN SMALL SATELLITE
 06/12/1998 – 07/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: G MORGENTHAER
Tech. Officer: GSFC/G SOFFEN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 30003 UNIVERSITY OF COLORADO – BOULDER **3440**
SATELLITE REMOTE SENSING OF ECOSYSTEM STRUCTURAL A IN SPATIALLY HETEROGENEOUS REGIONS:
 10/11/1996 – 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: D A WEISMAN
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30023 UNIVERSITY OF COLORADO – BOULDER **3441**
EL NINO PREDICTION USING HUERISTIC ALGORITHMS
 10/14/1996 – 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: D WEBSTER
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30025 UNIVERSITY OF COLORADO – BOULDER **3442**
PROPOSAL FOR THE STUDY AND MODELING OF THE MAGMATI MECHANISM AT LONG VALLEY CALDERA, CALIFORNIA
 10/17/1996 – 08/31/1998 FY98: \$22,000 Total: \$66,000
Prin. Invest.: J B RUNDLE
Tech. Officer: GSFC/G ASRAR
CASE Category: 32 – GEOLOGICAL SCIENCE

NGT 5 30026 UNIVERSITY OF COLORADO – BOULDER **3443**
SCALABLE AND ADAPTIVE FILE MANAGEMENT IN NETWORKS
 10/17/1996 – 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: D WEISMAN
Tech. Officer: HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30034 UNIVERSITY OF COLORADO – BOULDER **3444**
IMPROVING THE PREDICTABILITY OF POLAR CLIMATE THRO ASSIMILATION OF REMOTELY-SENSED DATA
 10/17/1996 – 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: J MASLANIK
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30059 UNIVERSITY OF COLORADO – BOULDER **3445**
THIRD YEAR FUNDING: A 14000 YEAR RECORD OF DECADE TROPICAL CLIMATE VARIABILITY FROM ANNUALLY-LAMINA
 09/10/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J OVERPECK
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30072 UNIVERSITY OF COLORADO – BOULDER **3446**
PASSIVE MICROWAVE MEASUREMENTS OF ARCTIC CLOUDS
 09/09/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: J CURRY
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30076 UNIVERSITY OF COLORADO – BOULDER **3447**
ATMOSPHERIC LIFETIMES OF PEROXY NITRATES STUDENT – EDW
 09/09/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: A R RAVIS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30102 UNIVERSITY OF COLORADO – BOULDER **3448**
PROPOSAL TO STUDY THE SURFACE PROPERTIES AND CHEMISTRY OF MODEL POLAR STRATOSPHERIC CLOUDS GSRP
 10/31/1997 – 08/31/1998 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M TOLBERT
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30128 UNIVERSITY OF COLORADO – BOULDER **3449**
SPATIAL VARIABILITY OF CLOUD CHARACTERISTICS & SURFACE RADIATION FLUXES FOR SHEBA/FIRE III
 10/01/1997 – 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: J CURRY
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30136 UNIVERSITY OF COLORADO – BOULDER **3450**
LABORATORY STUDIES OF CIRRUS CLOUD FORMATION MECHANISMS/STUDENT: FORTIN
 09/04/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M TOLBERT
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30155 UNIVERSITY OF COLORADO – BOULDER **3451**
COMPARISONS OF THREE-DIMENSIONAL GENERAL CIRCULATION MODEL SIMULATIONS OF THE DESERT AEROSOL LIFE
 08/28/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: B TOON, COLARCO
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30170 UNIVERSITY OF COLORADO – BOULDER **3452**
ATMOSPHERIC CIRCULATION AND REGIONAL SEA ICE SENSITIVITY IN THE ARCTIC STUDENT: LYNCH CULLATHER
 09/04/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: A H LYNCH
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 40028 UNIVERSITY OF COLORADO – BOULDER **3453**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 12/31/1996 – 01/31/1999 FY98: \$477,500 Total: \$917,748
Prin. Invest.: E R HANSEN
Tech. Officer: HQ/D DASCH
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50022 UNIVERSITY OF COLORADO – BOULDER **3454**
CHEMISTRY IN COMETS HALE-BOOP AND HYAKUTAKE
 07/17/1997 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: W CASH
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50032 UNIVERSITY OF COLORADO – BOULDER **3455**
THE RELATIONSHIP BETWEEN INTERSTELLAR DUST EXTINCTION OF THE INTERSTELLAR GAS
 07/14/1997 – 12/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D P SNOW
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50056 UNIVERSITY OF COLORADO – BOULDER **3456**
BOUNDED WAVELET ANALYSIS OF OCEANOGRAPHIC REMOTE
 07/28/1997 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D ETTER
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50070 UNIVERSITY OF COLORADO – BOULDER **3457**
STUDY OF THE MECHANISM OF HETEROGENEOUS ATMOSPHERIC POLAR STRATOSPHERIC CLOUDS
 08/29/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: M TOLBERT
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50090 UNIVERSITY OF COLORADO – BOULDER **3458**
GRADUATE STUDENT RESEARCHERS PROGRAM
 09/05/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: P TODD
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50102 UNIVERSITY OF COLORADO – BOULDER **3459**
PROPOSAL FOR THE DEVELOPMENT, EXPLORATION, AND VALIDATION OF A FULLY THREE-DIMENSIONAL EARTHQUAKE MODEL
 09/06/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: J R JNDLE
Prin. Invest.: NONE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50106 UNIVERSITY OF COLORADO – BOULDER **3460**
DETERMINATION OF OPTICAL CONSTANTS FOR THE REMOTE STRATOSPHERIC CLOUDS AND GLOBAL AEROSOLS
 09/06/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: M TOLBERT
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50124 UNIVERSITY OF COLORADO – BOULDER **3461**
DETECTION OF POLEWARD PROPAGATING ENSO SIGNALS USING
 09/09/1997 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: R LEBEN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50141 UNIVERSITY OF COLORADO – BOULDER **3462**
INVESTIGATIONS OF A P MODE PROPAGATION IN THE SOLAR
 09/10/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: E C ZWEIBEL
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50176 UNIVERSITY OF COLORADO – BOULDER **3463**
A STUDY OF THE HOT COMPONENT OF THE LOCAL INTERSTELLAR MEDIUM
 05/22/1998 – 06/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J C GREEN/MCLEAN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 – ASTRONOMY

NGT 5 50181 UNIVERSITY OF COLORADO – BOULDER **3464**
ADAPTIVE CONTROL ARCHITECTURES FOR ADVANCED SPACE EXPLORATION
 02/10/1998 – 12/31/1998 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R SUI
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50194 UNIVERSITY OF COLORADO - BOULDER **3465**
STELLAR EVOLUTION IN STARBURST GALAXIES
 06/05/1998 - 07/31/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: P S CONTI
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NGT 5 50197 UNIVERSITY OF COLORADO - BOULDER **3466**
MARTIAN SURFACE MAGNETIC FIELD
 06/11/1998 - 06/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: F BAGENAL
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 - ASTRONOMY

NGT 5 50221 UNIVERSITY OF COLORADO - BOULDER **3467**
IMPLICATIONS OF LAND-USE LEGACIES IN THE DUKE FORE ST:
ASSESSING CHANGES IN LAND COVER, FOREST PRODU
 09/29/1998 - 08/31/2000 FY98: \$22,923 Total: \$22,923
Prin. Invest.: D URBAN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 39 - ENVIRONMENTALSCI, OTHER

NGT 9 22 UNIVERSITY OF COLORADO - BOULDER **3468**
REMOTELY DETERMINING MATERIAL TYPE OF ORBITAL DEB
 05/30/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: L NELSON
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 49 - ENGINEERING, OTHER

NSG 5303 UNIVERSITY OF COLORADO - BOULDER **3469**
ULTRAVIOLET MEASUREMENTS WITH HIGH SPECTRAL RESOLUTION
 09/15/1978 - 11/30/1997 FY98: \$0 Total: \$6,464,764
Prin. Invest.: T P SNOW, JR., W E MCCLINTOCK, W C CASH
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 11 - ASTRONOMY

NAG 5 7327 UNIVERSITY OF COLORADO - DENVER **3470**
CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZERS
 04/29/1998 - 04/30/1999 FY98: \$1,000 Total: \$1,000
Prin. Invest.: A C SADUN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG13 57 UNIVERSITY OF COLORADO AT COLORADO SPRINGS **3471**
SMALL SPACECRAFT TECHNOLOGY INITIATIVE SAME
 09/30/1997 - 06/29/1998 FY98: \$0 Total: \$14,832
Prin. Invest.: C FOSHA, M AUGUSTEIOJN
Tech. Officer: SSC/V ZANONI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1918 UNIVERSITY OF DENVER **3472**
COLLECTION AND ANALYSIS OF AIRCRAFT EMITTED PARTICLES
 04/25/1997 - 01/31/1999 FY98: \$0 Total: \$52,605
Prin. Invest.: J C WILSON
Tech. Officer: LARC/B E ANDERSON, LARC/W R COFER, III
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 351 UNIVERSITY OF DENVER **3473**
INFRARED MEASUREMENTS OF ATMOSPHERIC CONSTITUENTS
 12/12/1985 - 12/31/1998 FY98: \$376,996 Total: \$5,070,400
Prin. Invest.: D G MURCRAE
Tech. Officer: ARC/R S HIPSKIND, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1229 UNIVERSITY OF DENVER **3474**
ANALYSIS OF AIRCRAFT PLUMES ENCOUNTERED BY THE NAS A ER-2 IN
THE TROPOSPHERE
 06/08/1998 - 12/31/1998 FY98: \$39,180 Total: \$39,180
Prin. Invest.: J C WILSON
Tech. Officer: ARC/R S HIPSKING, ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1242 UNIVERSITY OF DENVER **3475**
LABORATORY TESTING & CALIBRATION OF THE NUCLEI-MODE E AEROSOL
SIZE SPECTROMETER
 07/28/1998 - 07/31/1999 FY98: \$22,268 Total: \$22,268
Prin. Invest.: C A BROCK
Tech. Officer: ARC/R S HIPSKING
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1269 UNIVERSITY OF DENVER **3476**
MEASUREMENTS OF NUCLEATION-MODE PARTICLE SIZE DISTRIBUTIONS
IN AIRCRAFT PLUMES DURING SULFUR6
 09/21/1998 - 11/14/1998 FY98: \$6,177 Total: \$6,177
Prin. Invest.: C A BROCK
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1609 UNIVERSITY OF DENVER **3477**
MICROGRAVITY HEAT TRANSFER MECHANISMS IN THE NUCLEATE POOL
BOILING AND CRITICAL HEAT FLUX REIMES
 05/24/1994 - 07/09/1997 FY98: \$1,226 Total: \$99,925
Prin. Invest.: J KIM, C A MOORE
Tech. Officer: LERC/J B MCQUILLEN
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 3386 UNIVERSITY OF DENVER **3478**
CALIBRATION AND SCIENTIFIC SUPPORT OF LENA FOR THE IMAGE SAT-
ELLITE PROGRAM
 09/04/1996 - 01/31/1999 FY98: \$115,000 Total: \$210,598
Prin. Invest.: T STEPHEN
Tech. Officer: GSFC/M SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 3411 UNIVERSITY OF DENVER **3479**
ISO OBSERVATIONS OF CIRCUMSTELLAR DISKS: CLUES TO OF PLANETS
 09/19/1996 - 08/31/1999 FY98: \$117,000 Total: \$237,000
Prin. Invest.: R E STENCEL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6467 UNIVERSITY OF DENVER **3480**
NEAR IR BALLOON-BORNE MEASUREMENTS IN SUPPORT OF S AGE III
AND MOPITT
 11/12/1997 - 09/30/1999 FY98: \$139,469 Total: \$139,469
Prin. Invest.: F J MURCRAE
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6679 UNIVERSITY OF DENVER **3481**
GROUND BASED FTIR SOLAR SPECTRAL MEASUREMENTS IN S UPPORT
OF MOPITT & SAGE III
 12/12/1997 - 12/31/1999 FY98: \$89,964 Total: \$89,964
Prin. Invest.: F J MURCRAE
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

CONNECTICUT

NASA'S UNIVERSITY PROGRAM

NAS 1 96017 UNIVERSITY OF DENVER **3482**
COMPARISON OF INSITU AEROSOL SIZE DISTRIBUTIONS ACQUIRED IN THE UPPER TROPOSPHERE AND LOWER
 08/02/1996 - 08/02/1999 FY98: \$24,000 Total: \$71,000
Prin. Invest.: J C WILSON
Tech. Officer: LARC/G MADDREA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 48 UNIVERSITY OF DENVER **3483**
COLLABORATIVE STUDY OF HIGH RESOLUTION INFRARED ATMOSPHERIC SPECTRA
 11/26/1980 - 11/30/1999 FY98: \$51,000 Total: \$797,705
Prin. Invest.: A GOLDMAN, D G MURCRAY
Tech. Officer: LARC/C P RINSLAND, LARC/R K SEALS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 313 UNIVERSITY OF DENVER **3484**
ANALYSIS OF ATMOSPHERIC MEASUREMENTS IN SUPPORT OF THE NETWORK FOR THE DETECTION OF STRATOSPHERIC CH
 07/22/1998 - 09/30/2001 FY98: \$20,986 Total: \$20,986
Prin. Invest.: F J MURCRAY
Tech. Officer: LARC/C P RINSLAND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 782 UNIVERSITY OF DENVER **3485**
AEROSOL MEASUREMENTS FROM THE ER-2 IN SPADE II & A SHOME: UPGRADE OF THE FOCUSED CAVITY AEROSOL ...
 02/18/1993 - 12/31/1998 FY98: \$257,064 Total: \$1,599,064
Prin. Invest.: J C WILSON
Tech. Officer: ARC/E CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 894 UNIVERSITY OF DENVER **3486**
HIGHLY RESOLVED AEROSOL MEASUREMENTS FROM HIGH ALTITUDE PLATFORMS: FOCUSED CAVITY AEROSOL ...
 03/21/1995 - 03/31/1998 FY98: \$15,003 Total: \$415,002
Prin. Invest.: J C WILSON
Tech. Officer: ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 3 470 UNIVERSITY OF DENVER **3487**
INVESTIGATION OF POOL BOILING HEAT TRANSFER MECHANISM IN MICROGRAVITY USING AN ARRAY OF SURFACE MOUNTED
 05/03/1996 - 05/31/2000 FY98: \$76,001 Total: \$231,001
Prin. Invest.: J KIM, T S KALKUR
Tech. Officer: LERC/J B MCQUILLEN
CASE Category: 49 - ENGINEERING, OTHER

NGT 51290 UNIVERSITY OF DENVER **3488**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/30/1994 - 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: R E STENCEL
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 - ASTRONOMY

NSG 1432 UNIVERSITY OF DENVER **3489**
GROUND MONITORING OF ATMOSPHERIC CONSTITUENTS BY HIGH RESOLUTION INFRARED SOLAR SPECTROSCOPY
 07/08/1977 - 04/10/1999 FY98: \$0 Total: \$1,322,700
Prin. Invest.: D G MURCRAY
Tech. Officer: LARC/C P RINSLAND, LARC/M A SMITH
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 979 UNIVERSITY OF NORTHERN COLORADO **3490**
DESIGN ORDER RIGHT ON TIME HELP EXPERTISE
 11/25/1997 - 06/30/1998 FY98: \$15,500 Total: \$15,500
Prin. Invest.: J R HILL
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 90057 UNIVERSITY OF NORTHERN COLORADO **3491**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 02/12/1997 - 08/31/1997 FY98: \$0 Total: \$20,000
Prin. Invest.: P ISACSON
Tech. Officer: GS/C/R LAWRENCE
CASE Category: 22 - COMPUTER SCIENCE

CONNECTICUT

NAG 5 6316 UNIV. OF CONNECTICUT HEALTH CENTER **3492**
TRANSGENIC MARKERS OF BONE CELL LINEAGE PROGRESSION
 09/29/1997 - 06/30/1999 FY98: \$177,826 Total: \$246,126
Prin. Invest.: D ROWE
Tech. Officer: GS/C/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 3332 UNIV. OF CONNECTICUT HEALTH CENTER **3493**
COLLAGEN PROMOTER TRANSGENE ACTIVITY IN NORMAL AND MUTANT MICE
 02/05/1993 - 06/30/1997 FY98: \$0 Total: \$313,056
Prin. Invest.: D W ROWE
Tech. Officer: HQ/T W HALSTEAD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 1 1382 UNIVERSITY OF CONNECTICUT **3494**
NEAR-THRESHOLD FATIGUE CRACK GROWTH IN ALUMINUM ALLOYS AND Ti-6Al-4V FROM AMBIENT TO 400 DEGREES F
 02/28/1992 - 05/31/1998 FY98: \$0 Total: \$308,918
Prin. Invest.: A J MCEVILY
Tech. Officer: LARC/J C NEWMAN, LARC/C E HARRIS
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1870 UNIVERSITY OF CONNECTICUT **3495**
EVAPORATION, BOILING AND CONDENSATION ON MINICAPILLARY STRUCTURES OF HIGH HEAT FLUX TWO-PHASE DEVICES
 05/09/1996 - 05/31/2000 FY98: \$36,000 Total: \$186,000
Prin. Invest.: A FA GHRI
Prin. Invest.: NONE
Tech. Officer: LERC/B S SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 5 4029 UNIVERSITY OF CONNECTICUT **3496**
THE EARLY EVOLUTION OF PRO- AND EUKARYOTES
 03/06/1997 - 03/31/1998 FY98: \$0 Total: \$29,999
Prin. Invest.: D P JOGARTEN
Tech. Officer: GS/C/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 6536 UNIVERSITY OF CONNECTICUT **3497**
LABORATORY FOR EARTH RESOURCES INFORMATION SYSTEMS
 10/24/1997 - 09/30/1998 FY98: \$97,755 Total: \$97,755
Prin. Invest.: D CHICO
Tech. Officer: GS/C/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7182 UNIVERSITY OF CONNECTICUT **3498**
INVESTIGATION FOR A PERMANENT CHARACTERIZATION FACILITY FOR X-RAY & GAMMA-RAY DETECTORS TO BE F
 04/07/1998 – 01/31/1999 FY98: \$8,000 Total: \$8,000
Prin. Invest.: J SCHWEITZER
Tech. Officer: GSFC/J TROMBKA
CASE Category: 11 – ASTRONOMY

NAG 5 7654 UNIVERSITY OF CONNECTICUT **3499**
ECOPHYSIOLOGY OF SUBPOPULATIONS OF ALEXANDRIUM TAMARENSE
 08/25/1998 – 08/31/2001 FY98: \$50,000 Total: \$50,000
Prin. Invest.: C ROESLER
Tech. Officer: HQ/J CAMPBELL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 8 1428 UNIVERSITY OF CONNECTICUT **3500**
BOSE-EINSTEIN CONDENSATE AND ATOM LASER: COHERENCE AND OPTICAL PROPERTIES
 02/02/1998 – 01/31/2003 FY98: \$46,000 Total: \$46,000
Prin. Invest.: J JAVANAINEN
Tech. Officer: MSFC/J POE
CASE Category: 13 – PHYSICS

NAGW 4572 UNIVERSITY OF CONNECTICUT **3501**
THE EARLY EVOLUTION OF PRO- AND EUKARYOTES
 06/09/1995 – 08/31/1998 FY98: \$0 Total: \$60,001
Prin. Invest.: J P GOGARTEN
Tech. Officer: HQ/M MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG10 191 UNIVERSITY OF CONNECTICUT **3502**
OPTICAL VERIFICATION LAB DEMO SYSTEM FOR HIGH SECURITY
 05/01/1996 – 01/29/1999 FY98: -\$100,000 Total: \$100,000
Prin. Invest.: B JAVIDI
Tech. Officer: KSC/K POIMBOEUT
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG10 246 UNIVERSITY OF CONNECTICUT **3503**
STUDY EFFECTS OF MICROGRAVITY ON EXPRESSION OF AUXIN
 08/01/1998 – 07/31/1999 FY98: \$38,445 Total: \$38,445
Prin. Invest.: Y LI
Tech. Officer: GSFC/G ETHERAGE
CASE Category: 59 – LIFE SCIENCE, OTHER

NCC 2 5123 UNIVERSITY OF CONNECTICUT **3504**
MULTIPLE FAULT ISOLATION IN REDUNDANT SYSTEMS
 04/14/1995 – 05/31/1997 FY98: -\$15,477 Total: \$24,505
Prin. Invest.: K R PATTIPATI
Tech. Officer: ARC/A PATTERSON-HINE, ARC/D L IVERSON
CASE Category: 49 – ENGINEERING, OTHER

NCC 2 5245 UNIVERSITY OF CONNECTICUT **3505**
VERIFICATION AND VALIDATION OF HIGH INTEGRITY SOFTWARE FOR SAFETY-CRITICAL APPLICATION
 12/04/1997 – 11/30/1998 FY98: \$59,885 Total: \$59,885
Prin. Invest.: K R PATTIPATI
Tech. Officer: ARC/A PATTERSON-HINE, ARC/D KULKARNI
CASE Category: 22 – COMPUTER SCIENCE

NCC 5 64 UNIVERSITY OF CONNECTICUT **3506**
CONNECT: A NEW ENGLAND ALLIANCE FOR PHOTONICS TECHNOLOGY DEPLOYMENT PROJECT IN SUPPORT OF TRP PROGRAM
 08/02/1994 – 08/02/1998 FY98: \$0 Total: \$369,000
Prin. Invest.: C ROYCHOUDHURI
Tech. Officer: GSFC/N MINNIFIELD
CASE Category: 49 – ENGINEERING, OTHER

NGT 30240 UNIVERSITY OF CONNECTICUT **3507**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/14/1994 – 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: J SILANDER
Tech. Officer: HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 40037 UNIVERSITY OF HARTFORD **3508**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 08/15/1991 – 02/28/1998 FY98: -\$3,585 Total: \$1,103,751
Prin. Invest.: L S NAGURNEY
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 40031 UNIVERSITY OF HARTFORD **3509**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 12/30/1996 – 02/28/1999 FY98: \$212,500 Total: \$382,500
Prin. Invest.: L S NAGURNEY
Tech. Officer: HQ/J DASCH
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1269 UNIVERSITY OF NEW HAVEN **3510**
JOVE RESEARCH
 01/21/1997 – 08/31/1999 FY98: \$7,857 Total: \$45,197
Prin. Invest.: S D BOGAN
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 49 – ENGINEERING, OTHER

NAG 5 4821 WESLEYAN UNIVERSITY **3511**
PHOTOMETRIC STUDIES OF T TAURI STARS
 06/18/1997 – 05/31/1999 FY98: \$17,792 Total: \$60,492
Prin. Invest.: D HERBST
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 2 948 YALE UNIVERSITY **3512**
SYNAPTOGENESIS IN MICROGRAVITY
 12/20/1994 – 09/30/1998 FY98: \$120,000 Total: \$354,933
Prin. Invest.: H S KESHISHIAN
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 3 1625 YALE UNIVERSITY **3513**
NUMERICAL MODELING OF FLAME-BALLS IN FUEL-AIR MIXTURES
 06/22/1994 – 06/21/1998 FY98: \$30,000 Total: \$106,000
Prin. Invest.: M D SMOOKE
Tech. Officer: LERC/H D ROSS
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1688 YALE UNIVERSITY 3514
**SPRAY COMBUSTION AT NORMAL & REDUCED GRAVITY IN CO UNTER-
 FLOW & CO-FLOW CONFIGURATIONS**
 12/12/1994 - 11/30/1998 FY98: \$133,000 Total: \$516,863
Prin. Invest.: A GOMEZ
Tech. Officer: LERC/D STOCKER
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1866 YALE UNIVERSITY 3515
INVESTIGATION OF FUTURE MICROGRAVITY ATOMIC CLOCKS
 05/09/1996 - 05/08/1998 FY98: \$50,000 Total: \$150,000
Prin. Invest.: P GIBBLE
Tech. Officer: LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1935 YALE UNIVERSITY 3516
RHEOLOGY OF CONCENTRATED EMULSIONS
 08/05/1996 - 05/31/2000 FY98: \$88,000 Total: \$278,000
Prin. Invest.: M LOEWENBERG
Tech. Officer: LERC/B SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 3 1939 YALE UNIVERSITY 3517
**COMPUTATIONAL & EXPERIMENTAL STUDY OF LAMINAR DIFFUSION
 FLAMES IN A MICROGRAVITY ENVIRONMENT**
 08/05/1996 - 07/30/2000 FY98: \$111,250 Total: \$229,000
Prin. Invest.: M B LONG, M D SMOOKE
Tech. Officer: LERC/K J WEILAND, LERC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1951 YALE UNIVERSITY 3518
**DESIGN/INTERPRETATION OF MICROGRAVITY EXPERIMENT TO OBTAIN
 FLUID/SOLID BOUNDARY CONDITIONS IN NON-I**
 08/14/1996 - 08/31/2000 FY98: \$119,000 Total: \$218,999
Prin. Invest.: D E ROSNER
Tech. Officer: LERC/B S SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 3 2147 YALE UNIVERSITY 3519
**SCIENTIFIC STUDIES AND TECHNOLOGY POTENTIAL OF ACOUSTO-ELEC-
 TRICALLY GENERATED DROP OR PARTICLE CLUST**
 03/30/1998 - 10/06/1999 FY98: \$75,000 Total: \$75,000
Prin. Invest.: R E APLEL
Tech. Officer: LERC/R B ROGERS
CASE Category: 13 - PHYSICS

NAG 5 2795 YALE UNIVERSITY 3520
**THE SOLAR-STELLAR CONNECTION: THEORETICAL RESEARCH ON THE
 INTERNAL STRUCTURE AND DYNAMICS OF**
 12/01/1994 - 08/31/1997 FY98: \$0 Total: \$204,960
Prin. Invest.: P DEMARQUE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2882 YALE UNIVERSITY 3521
**SUPERCONDUCTING FILMS AND TUNNEL JUNCTIONS FOR SINGLE-PHOTON
 X-RAY DETECTORS**
 02/13/1995 - 09/30/1998 FY98: \$0 Total: \$344,000
Prin. Invest.: D E PROBER
Tech. Officer: GSFC/S H MOSELEY, GSFC/A E SZYMOWIAK
CASE Category: 13 - PHYSICS

NAG 5 3686 YALE UNIVERSITY 3522
**THE PROPAGATION OF VERY HIGH ENERGY PARTICLES THROUGH
 01/14/1997 - 01/14/1999 FY98: \$0 Total: \$67,181**
Prin. Invest.: P COPPI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3710 YALE UNIVERSITY 3523
**ARE G PROTEIN MECHANOSENSORS FOR ENDOTHELIAL CELL
 12/05/1996 - 10/31/1997 FY98: \$0 Total: \$106,810**
Prin. Invest.: I M MILLS
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 19 - LIFE SCIENCE, OTHER

NAG 5 3853 YALE UNIVERSITY 3524
**CLIMATE CHANGE AND HUMAN RESPONSE IN THE SEMI-ARID
 (148-65-80-27)**
 12/16/1996 - 12/14/1998 FY98: \$396,854 Total: \$796,145
Prin. Invest.: R B SMITH
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 11 - ATMOSPHERIC SCIENCE

NAG 5 3972 YALE UNIVERSITY 3525
COASTAL WINDS AND ISLAND WAKES
 03/05/1997 - 03/31/1999 FY98: \$65,235 Total: \$123,600
Prin. Invest.: R B SMITH
Tech. Officer: GSFC/S H GOGINENI
CASE Category: 13 - OCEANOGRAPHY

NAG 5 6054 YALE UNIVERSITY 3526
**"MOLECULAR MECHANISMS REGULATING IGF-1 SYNTHESIS IN
 07/29/1997 - 12/31/1998 FY98: \$0 Total: \$139,557**
Prin. Invest.: T MC CARTHY
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 19 - LIFE SCIENCE, OTHER

NAG 5 6076 YALE UNIVERSITY 3527
A DEEP ROSAT H II SURVEY OF GALACTIC GLOBULAR CLUSTERS
 08/01/1997 - 07/31/1998 FY98: \$0 Total: \$3,115
Prin. Invest.: C BAILLYN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6404 YALE UNIVERSITY 3528
OBSERVATIONAL STUDIES OF DYNAMICAL EFFECTS IN GLOBULAR CLUSTERS
 11/04/1997 - 08/31/1998 FY98: \$100,000 Total: \$100,000
Prin. Invest.: C BAILLYN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6691 YALE UNIVERSITY 3529
A BROAD-BAND, SIMULTANEOUS OBSERVATION OF CYGNUS X-1
 12/10/1997 - 11/30/1998 FY98: \$10,000 Total: \$10,000
Prin. Invest.: P COPPI
Tech. Officer: GSFC/J NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6720 YALE UNIVERSITY **3530**
EQUIPMENT FOR THE YALE CENTER FOR EARTH OBSERVATION
 12/10/1997 – 11/30/1998 FY98: \$141,573 Total: \$141,573
Prin. Invest.: R SMITH
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7074 YALE UNIVERSITY **3531**
STAR FORMATION IN THE EARLY UNIVERSE-ATP
 03/03/1998 – 02/14/1999 FY98: \$94,000 Total: \$94,000
Prin. Invest.: P COPPI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7409 YALE UNIVERSITY **3532**
XTE PROPOSAL (30158) – COORDINATED, BROAD-BAND OBSERVATIONS OF CYGNUS X-1
 05/28/1998 – 05/31/1999 FY98: \$7,521 Total: \$7,521
Prin. Invest.: P S COPPI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 8 1351 YALE UNIVERSITY **3533**
NOVEL CONCEPTS IN ACOUSTOPHORESIS FOR BIO-TECHNOLOGY APPLICATIONS UNDER DIRECTION DR. APFEL.
 05/23/1997 – 11/30/2000 FY98: \$62,000 Total: \$106,000
Prin. Invest.: R E APFEL
Tech. Officer: MSFC/C L TALLEY, MSFC/J ROGERS
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 8 1443 YALE UNIVERSITY **3534**
R/S ATOM INTERFEROMETRY IN A MICROGRAVITY ENVIRONMENT
 02/06/1998 – 01/31/2003 FY98: \$75,000 Total: \$75,000
Prin. Invest.: M A KASEVICH
Tech. Officer: MSFC/J W POE
CASE Category: 13 – PHYSICS

NAG 8 1449 YALE UNIVERSITY **3535**
INVESTIGATION OF FUTURE MICROGRAVITY ATOMIC CLOCKS
 03/09/1998 – 03/01/2003 FY98: \$156,290 Total: \$156,290
Prin. Invest.: K GIBBLE
Tech. Officer: MSFC/J POE
CASE Category: 13 – PHYSICS

NAG 8 1461 YALE UNIVERSITY **3536**
NUCLEATION AND GROWTH MECHANISMS UNDERLYING THE MICRO-STRUCTURE OF POLYMER FOAMS PRODUCED
 02/18/1998 – 01/31/2002 FY98: \$66,667 Total: \$66,667
Prin. Invest.: R E APFEL, D WU
Tech. Officer: MSFC/C TALLEY
CASE Category: 13 – PHYSICS

NAGW 3879 YALE UNIVERSITY **3537**
YALE UNIV; TERAHERTZ SUPERCONDUCTOR – HOT ELECTRON RECEIVERS; 12/1/93 NEW AWARD
 02/16/1994 – 08/31/1997 FY98: \$0 Total: \$250,000
Prin. Invest.: D E PROBER
Tech. Officer: HQ/L J CAROFF, HQ/J M VRTILEK
CASE Category: 11 – ASTRONOMY

NAGW 4197 YALE UNIVERSITY **3538**
MODELING THE CO₂-INDUCED THICKENING/THINNING OF THE GREENLAND AND ANTARCTIC ICE SHEETS
 09/11/1994 – 09/30/1996 FY98: \$0 Total: \$269,966
Prin. Invest.: B SALTZMAN
Tech. Officer: HQ/R H THOMAS, HQ/J S THEON
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4821 YALE UNIVERSITY **3539**
STATISTICAL ANALYSIS OF RED DWARF STARS
 10/03/1995 – 08/31/1998 FY98: \$0 Total: \$34,135
Prin. Invest.: A R UPGREN
Tech. Officer: HQ/R A STACHNIK
CASE Category: 11 – ASTRONOMY

NGT 30315 YALE UNIVERSITY **3540**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/05/1995 – 08/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: P K BARTEN
Tech. Officer: HQ/N MAYNARD, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 51395 YALE UNIVERSITY **3541**
GSRP
 06/16/1995 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: L J GUIDO
Tech. Officer: JPL/C HICKS
CASE Category: 45 – ELECTRICAL ENGR

NGT 3 52347 YALE UNIVERSITY **3542**
RHEOLOGY AND STATISTICAL MICROSTRUCTURE OF CONCENTRATED EMULSIONS AND FOAMS
 08/11/1998 – 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M LOEWENBERG, NONE
Tech. Officer: LERC/F MONTEGANI
CASE Category: 43 – CHEMICAL ENGR

NGT 5 30046 YALE UNIVERSITY **3543**
THIRD YEAR FUNDING: "CHARACTERIZING LINKAGES BETWEEN CRYPTOSPORIDIUM AND LAND USE USING REMOTE SENSING
 09/04/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: P K BARTEN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50042 YALE UNIVERSITY **3544**
TERAHERTZ SUPERCONDUCTING HETERODYNE RECEIVERS
 08/04/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: PROBER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50067 YALE UNIVERSITY **3545**
SPACE BASED LASER-COOLED ATOMIC CLOCKS
 08/26/1997 – 06/30/2000 FY98: \$22,000 Total: \$43,600
Prin. Invest.: K GIBBLE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 50082 YALE UNIVERSITY **3546**
SUPERCONDUCTING TUNNEL JUNCTION DETECTORS FOR SING IN VIS-
IBLE AND ULTRAVIOLET ASTRONOMY
 09/05/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: DANIEL
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

DELAWARE

NAG 1 2030 DELAWARE STATE COLLEGE **3547**
INVESTIGATION OF OPTICAL PHASE DISTORTIONS IN SOLID STATE
PULSED LASER AMPLIFIER
 03/23/1998 - 12/31/1998 FY98: \$98,036 Total: \$98,036
Prin. Invest.: N MELIKECHI
Tech. Officer: LARC/W C EDWARDS, LARC/N P BANRES
CASE Category: 13 - PHYSICS

NAG 8 248 DELAWARE STATE COLLEGE **3548**
JOVE
 08/10/1992 - 12/31/1996 FY98: \$269 Total: \$69,804
Prin. Invest.: P DIMARIC
Tech. Officer: MSFC/C R CHAPPELL
CASE Category: 11 - ASTRONOMY

NAG 1 1815 UNIVERSITY OF DELAWARE **3549**
STEROSCOPIC PIV USING ANGULAR DISPLACEMENT FOR TUR BULENCE
MEASUREMENTS BEHIND A WING FLAP
 03/05/1996 - 03/05/1998 FY98: \$1 Total: \$40,001
Prin. Invest.: A K PRASAD
Tech. Officer: LARC/K B PASCHAL, LARC/C S YAO
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1424 UNIVERSITY OF DELAWARE **3550**
SURFACTANT-BASED CRITICAL PHENOMENA IN MICROGRAVITY
 01/11/1993 - 12/31/1996 FY98: \$0 Total: \$300,000
Prin. Invest.: E W KALER, M E PAULAITIS
Tech. Officer: LERC/R A WILKINSON
CASE Category: 13 - PHYSICS

NAG 3 1920 UNIVERSITY OF DELAWARE **3551**
FREE-SURFACE AND CONTACT-LINE MOTION OF LIQUIDS IN A
MICROGRAVITY ENVIRONMENT
 07/07/1996 - 07/10/2000 FY98: \$95,000 Total: \$213,000
Prin. Invest.: L W SCHWARTZ
Tech. Officer: LERC/M W WEISLOGEL
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1955 UNIVERSITY OF DELAWARE **3552**
SURFACANT-BASED CRITICAL PHENOMENA IN MICROGRAVITY
 08/19/1996 - 08/31/2000 FY98: \$38,000 Total: \$136,500
Prin. Invest.: E W KALER, M E PAULATIS
Tech. Officer: LERC/B S SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 5 4829 UNIVERSITY OF DELAWARE **3553**
AN INTEGRATE) SYSTEM FOR WATER BUDGET CLOSURE OVER MASS: A
TRMM VALIDAT ON EFFORT
 07/03/1997 - 06/10/1999 FY98: \$40,000 Total: \$80,000
Prin. Invest.: C J WILLMOTT
Tech. Officer: GS/C/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 5054 UNIVERSITY OF DELAWARE **3554**
ACCELERATION OF COSMIC RAYS IN WIND-BLOWN STRUC- TURES
AROUND SUPERNOVAS
 03/27/1996 - 02/18/1999 FY98: \$0 Total: \$80,000
Prin. Invest.: T K ZAISSER
Tech. Officer: GS/C/H C NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5181 UNIVERSITY OF DELAWARE **3555**
PROTON/ANTI-PROTON RATIO AS A PROBE OF SOLAR MODULATION
 03/26/1998 - 02/18/1999 FY98: \$68,604 Total: \$68,604
Prin. Invest.: T K ZAISSER
Tech. Officer: GS/C/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6553 UNIVERSITY OF DELAWARE **3556**
THE INFLUENCE OF COUPLING WITH THE IONOSPHERE AND
ATMOSPHERE ON ROTATIONAL DYNAMICS IN THE JOVIAN MA
 10/17/1997 - 08/11/1999 FY98: \$69,000 Total: \$69,000
Prin. Invest.: D P JNTIUS
Tech. Officer: GS/C/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6619 UNIVERSITY OF DELAWARE **3557**
CENTERS OF EXCELLENCE IN APPLICATION OF REMOTE SENSING TO
REGIONAL AND GLOBAL INTEGRATED ENVIRONME
 11/18/1997 - 11/14/1999 FY98: \$150,018 Total: \$150,018
Prin. Invest.: D K EMAS
Tech. Officer: GS/C/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6686 UNIVERSITY OF DELAWARE **3558**
THE CONNECTION BETWEEN HYDROGEN, THE INTERSTELLAR MEDIUM,
AND THE DBV G 3358
 11/25/1997 - 11/10/1998 FY98: \$11,840 Total: \$11,840
Prin. Invest.: J L PROVENCAL
Tech. Officer: GS/C/R J OLIVENSEN
CASE Category: 11 - ASTRONOMY

NAG 5 7009 UNIVERSITY OF DELAWARE **3559**
NATURE AND ORIGIN OF THE HIGHEST ENERGY COSMIC RAYS - ATP
 02/12/1998 - 02/14/2001 FY98: \$95,900 Total: \$95,900
Prin. Invest.: T S ANOV
Tech. Officer: GS/C/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7237 UNIVERSITY OF DELAWARE **3560**
DEUTERIUM IN THE SUN: COSMOLOGICAL IMPLICATIONS AND CONVEC-
TION DYNAMICS
 04/08/1998 - 04/10/1999 FY98: \$31,170 Total: \$31,170
Prin. Invest.: D J MULLAN
Tech. Officer: GS/C/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 8 1242 UNIVERSITY OF DELAWARE **3561**
MOLECULARLY TAILORED SURFACES VIA SELF ASSEMBLY PROCESS
 04/25/1996 – 04/24/1998 FY98: \$30,000 Total: \$120,000
Prin. Invest.: M A BARTEALL
Tech. Officer: MSFC/C R TALLEY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1346 UNIVERSITY OF DELAWARE **3562**
PROTEIN CRYSTALLIZATION IN COMPLEX FLUIDS
 05/23/1997 – 11/30/1998 FY98: \$150,000 Total: \$223,000
Prin. Invest.: E W KALER, D
Tech. Officer: MSFC/D SMITH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1427 UNIVERSITY OF DELAWARE **3563**
DROPLETS OF 3HE-4HE MIXTURES
 02/11/1998 – 01/31/2003 FY98: \$75,000 Total: \$75,000
Prin. Invest.: S T CHUI
Tech. Officer: MSFC/JW POE
CASE Category: 13 – PHYSICS

NAG 9 989 UNIVERSITY OF DELAWARE **3564**
PROPOSAL TO DEVELOPE ASTRONAUT TRAINING
 02/08/1998 – 02/05/1999 FY98: \$20,000 Total: \$20,000
Prin. Invest.: V KLEMAS, Q ZHEN
Tech. Officer: JSC/S K RUNCO
CASE Category: 33 – OCEANOGRAPHY

NAGW 4355 UNIVERSITY OF DELAWARE **3565**
FLOODPLAIN AND RIVER DYNAMICS IN THREE LARGE SOUTH AMERICAN RIVERS
 03/15/1995 – 01/31/1997 FY98: \$0 Total: \$82,706
Prin. Invest.: C J WILLMOTT, C J VOROSMARTY, J M MELACK
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4771 UNIVERSITY OF DELAWARE **3566**
APPLICATION OF TOPEX/POSEIDON DATA TO OCEANIC DYNAMICS
 09/13/1995 – 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: X H YAN
Tech. Officer: HQ/M BALTUCK, HQ/D BUTLER
CASE Category: 33 – OCEANOGRAPHY

NCC 3 429 UNIVERSITY OF DELAWARE **3567**
AIRCRAFT REDUCED GRAVITY ENVIRONMENT OPTIMIZATION: MODELING, ANALYSIS, & DESIGN SUPPORT
 09/01/1995 – 09/30/1997 FY98: -\$1 Total: \$4,530
Prin. Invest.: A P ALLAN
Tech. Officer: LERC/K A LOGSDON
CASE Category: 49 – ENGINEERING, OTHER

NGT 51331 UNIVERSITY OF DELAWARE **3568**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/28/1994 – 06/30/1997 FY98: -\$18,775 Total: \$47,225
Prin. Invest.: S P OWOCKI
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 – ASTRONOMY

NGT 51389 UNIVERSITY OF DELAWARE **3569**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/16/1995 – 06/30/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: A M LENHOFF
Tech. Officer: HQ/G LESANE
CASE Category: 43 – CHEMICAL ENGR

NGT 5 40024 UNIVERSITY OF DELAWARE **3570**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 12/19/1996 – 02/28/1999 FY98: \$256,250 Total: \$461,250
Prin. Invest.: N F NESS
Tech. Officer: HQ/J DASCH
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 1573 UNIV OF DELAWARE – BARTOL RESEARCH INST **3571**
PARTICLE ACCELERATION TRANSPORT AND TURBULENCE IN COSMIC AND HELIOSPHERIC PHYSICS
 04/22/1991 – 07/14/1998 FY98: \$0 Total: \$1,570,000
Prin. Invest.: W H MATTHAEUS
Tech. Officer: GSFC/T BIRMINGHAM
CASE Category: 13 – PHYSICS

NAG 5 2606 UNIV OF DELAWARE – BARTOL RESEARCH INST **3572**
COMPREHENSIVE SUPRATHERMAL AND ENERGETIC PARTICLE ANALYZER FOR THE SOLAR HELIOSPHERIC OBSERVATORY
 05/23/1994 – 03/31/1999 FY98: \$77,000 Total: \$600,000
Prin. Invest.: P EVENSEN
Tech. Officer: GSFC/A POLAND, GSFC
CASE Category: 11 – ASTRONOMY

NAG 5 2848 UNIV OF DELAWARE – BARTOL RESEARCH INST **3573**
PARTICIPATION IN NASA/GSFC MAGNETOMETER EXPERIMENT ON GGS SPACECRAFT WIND
 12/15/1994 – 12/14/1998 FY98: \$0 Total: \$169,700
Prin. Invest.: N F NESS
Tech. Officer: GSFC/M ACUNA
CASE Category: 13 – PHYSICS

NAG 5 3026 UNIV OF DELAWARE – BARTOL RESEARCH INST **3574**
PEACE CO-INVESTIGATOR RESEARCH
 10/02/1995 – 10/14/1998 FY98: \$0 Total: \$122,000
Prin. Invest.: W MATTHAEUS
Tech. Officer: GSFC/M GOLDSTEIN
CASE Category: 13 – PHYSICS

NAG 5 3530 UNIV OF DELAWARE – BARTOL RESEARCH INST **3575**
MULTI-SPECTRAL DIAGNOSTICS AND DYNAMICAL MODELLING STAR WINDS
 12/13/1996 – 11/30/1998 FY98: \$88,800 Total: \$188,378
Prin. Invest.: S P OWOCKI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3538 UNIV OF DELAWARE – BARTOL RESEARCH INST **3576**
PARTICIPATION IN THE NASA GSFC MAGNETOMETER EXPERIMENT ON MARS GLOBAL SURVEYOR
 11/13/1996 – 06/30/1999 FY98: \$0 Total: \$25,000
Prin. Invest.: N NESS
Tech. Officer: GSFC/M ACUNA
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

DISTRICT OF COLUMBIA

NASA'S UNIVERSITY PROGRAM

NAG 5 4065 UNIV OF DELAWARE - BARTOL RESEARCH INST **3577**
RADIATION HYDRODYNAMICS OF INTERACTING WINDS IN MA
 03/26/1997 - 03/31/1999 FY98: \$64,000 Total: \$128,000
Prin. Invest.: K GAYLEY
Tech. Officer: HQ/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4997 UNIV OF DELAWARE - BARTOL RESEARCH INST **3578**
TURBULENCE AND PARTICLE TRANSPORT IN SPACE PLASMAS
 07/23/1997 - 07/14/1998 FY98: \$0 Total: \$60,000
Prin. Invest.: D BIEBER, NONE
Tech. Officer: GSFC/M FORMAN
CASE Category: 11 - ASTRONOMY

NAG 5 5063 UNIV OF DELAWARE - BARTOL RESEARCH INST **3579**
BALLOON AIR CHERENKOV (BACH) MEASUREMENTS OF HIGH ENERGY COSMIC RAY COMPOSITION
 05/03/1996 - 01/31/1999 FY98: \$292,000 Total: \$737,000
Prin. Invest.: P EVENSON
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5106 UNIV OF DELAWARE - BARTOL RESEARCH INST **3580**
ORIGIN OF HIGH ENERGY GALACTIC COSMIC RAYS
 02/27/1997 - 08/31/1998 FY98: \$0 Total: \$65,000
Prin. Invest.: T STANEV
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 6061 UNIV OF DELAWARE - BARTOL RESEARCH INST **3581**
EXPERIMENTAL RESEARCH ON ANISOTROPY OF THE COSMIC BACKGROUND RADIATION FROM A BALLOON-BORNE PLATFORM
 08/01/1997 - 06/30/1999 FY98: \$58,000 Total: \$100,000
Prin. Invest.: PICCIRILLO
Tech. Officer: GSFC/R SILVERBERG
CASE Category: 11 - ASTRONOMY

NAG 5 6469 UNIV OF DELAWARE - BARTOL RESEARCH INST **3582**
USING ULYSSES OBSERVATIONS TO CONSTRAIN GLOBAL MODELS OF THE HELIOSPHERE
 10/31/1997 - 10/31/1998 FY98: \$95,795 Total: \$95,795
Prin. Invest.: G ZANK
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6470 UNIV OF DELAWARE - BARTOL RESEARCH INST **3583**
ULYSSES-SWICS CONSTRAINTS ON NON-MAXWELLIAN ELECTRON DISTRIBUTIONS AND UNEQUAL ION FLOW SPEEDS IN A
 11/14/1997 - 10/31/1998 FY98: \$52,407 Total: \$52,407
Prin. Invest.: S OWOCKI
Tech. Officer: HQ/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6570 UNIV OF DELAWARE - BARTOL RESEARCH INST **3584**
INVESTIGATION OF INTERPLANETARY TURBULENCE AT HIGH LATITUDE USING THE ULYSSES SPACECRAFT
 11/13/1997 - 10/31/1998 FY98: \$78,697 Total: \$78,697
Prin. Invest.: C SMITH
Tech. Officer: HQ/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6905 UNIV OF DELAWARE - BARTOL RESEARCH INST **3585**
ORIGINS OF COOL STAR MASS LOSS: A UNIFIED AND EFFICIENT APPROACH TO ANALYZE FLUCTUATING WINDS
 02/09/1998 - 01/11/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: D MJLLAN
Tech. Officer: HQ/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6969 UNIV OF DELAWARE - BARTOL RESEARCH INST **3586**
ENERGETIC PARTICLE PROCESSES IN THE HELIOSPHERE
 03/12/1998 - 05/11/2001 FY98: \$39,167 Total: \$39,167
Prin. Invest.: J A L E ROUX
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 7142 UNIV OF DELAWARE - BARTOL RESEARCH INST **3587**
TURBULENCE AND PARTICLE TRANSPORT IN SPACE PLASMAS
 03/23/1998 - 02/28/2001 FY98: \$59,133 Total: \$59,133
Prin. Invest.: J BIEBER
Tech. Officer: HQ/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 7143 UNIV OF DELAWARE - BARTOL RESEARCH INST **3588**
HEATING OF CORONAL LOOPS: A TEST OF RESONANT ABSORPTION
 03/23/1998 - 04/11/1999 FY98: \$23,721 Total: \$23,721
Prin. Invest.: D MJLLAN
Tech. Officer: HQ/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7164 UNIV OF DELAWARE - BARTOL RESEARCH INST **3589**
TURBULENCE, RECONNECTION, AND HEATING IN THE LOWER CORONA
 03/13/1998 - 04/11/1999 FY98: \$48,588 Total: \$48,588
Prin. Invest.: W H MATTHAEUS
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7545 UNIV OF DELAWARE - BARTOL RESEARCH INST **3590**
EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND REGIONS
 06/22/1998 - 06/30/2001 FY98: \$110,144 Total: \$110,144
Prin. Invest.: D LEATHERS, W SHUTTLEWORTH
Prin. Invest.: NONE
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7585 UNIV OF DELAWARE - BARTOL RESEARCH INST **3591**
OBSERVATIONAL STUDIES OF THE SOLAR CORONA (UD PROPOSAL #99-2570-0004)
 08/27/1998 - 08/31/1999 FY98: \$20,320 Total: \$20,320
Prin. Invest.: D MJLLAN
Tech. Officer: GSFC/J M DAVILLA
CASE Category: 11 - ASTRONOMY

DISTRICT OF COLUMBIA

NGT 5 90006 GALLAUDET UNIVERSITY **3592**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 12/30/1996 - 06/30/1998 FY98: \$0 Total: \$57,112
Prin. Invest.: G MCGAUGHAN
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 90078 GALLAUDET UNIVERSITY **3593**
UNDERGRADUATE STUDENT RESEARCHERS PROGRAM (USRP)
 10/06/1997 – 05/31/1999 FY98: \$39,838 Total: \$39,838
Prin. Invest.: G MCGAUGHRAN
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 1 1353 GEORGE WASHINGTON UNIVERSITY **3594**
RESEARCH AND EDUCATION PROGRAM FOR NON-TRADITIONAL ENGINEERING STUDENTS IN THE JIAFS
 10/09/1991 – 11/30/1998 FY98: \$28,782 Total: \$530,187
Prin. Invest.: J L WHITESIDES
Tech. Officer: LARC/R L YANG, LARC/E J PRIOR
CASE Category: 49 – ENGINEERING, OTHER

NAG 1 1972 GEORGE WASHINGTON UNIVERSITY **3595**
A PROGRAM OF RESEARCH AND EDUCATION IN AERO-SPACE VEHICLE DESIGN, SYNTHESIS, AND OPTIMIZATION.
 10/31/1997 – 11/30/1998 FY98: \$190,862 Total: \$190,862
Prin. Invest.: R R SANDUSKY
Tech. Officer: LARC/C V ECKSTROM
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 697 GEORGE WASHINGTON UNIVERSITY **3596**
MATHEMATICAL MODELING OF ENERGY MINIMIZING OFF-DESIGN SHAPES OF LARGE SCIENTIFIC BALLOONS
 01/25/1993 – 05/31/2000 FY98: \$171,838 Total: \$572,414
Prin. Invest.: F BAGINSKI
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/I S SMITH
CASE Category: 21 – MATHEMATICS

NAG 5 3150 GEORGE WASHINGTON UNIVERSITY **3597**
MEASUREMENT AND MODELING OF VEGETATIVE TERRAIN FOR SOIL MOISTURE RETRIEVAL
 01/18/1996 – 01/14/1997 FY98: \$0 Total: \$23,500
Prin. Invest.: R H LANG
Tech. Officer: GSFC/P E O'NEILL, GSFC/E T ENGMAN
CASE Category: 11 – ASTRONOMY

NAG 5 3957 GEORGE WASHINGTON UNIVERSITY **3598**
ENVIRONMENTAL SECURITY, SUSTAINABLE DEVELOPMENT, A GLOBAL OBSERVING STRATEGY
 03/03/1997 – 12/31/1998 FY98: \$58,927 Total: \$241,786
Prin. Invest.: D WILLIAMSON
Tech. Officer: GSFC/J GASCH
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4294 GEORGE WASHINGTON UNIVERSITY **3599**
FUNDING FOR UNSOLICITED PROPOSAL ENTITLED: "EFFECTIVE VEGETATION CANOPIES ON MICROWAVE REMOTE SENSING"
 03/28/1997 – 03/31/1999 FY98: \$0 Total: \$91,704
Prin. Invest.: N CHAUHAN
Tech. Officer: GSFC/L L THOMPSON
CASE Category: 45 – ELECTRICAL ENGR

NAG 5 4800 GEORGE WASHINGTON UNIVERSITY **3600**
MEASUREMENT AND MODELING OF VEGETATIVE TERRAIN FOR RETRIEVAL
 06/20/1997 – 12/31/1998 FY98: \$0 Total: \$23,000
Prin. Invest.: R LANG
Tech. Officer: GSFC/P E O'NEILL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 5160 GEORGE WASHINGTON UNIVERSITY **3601**
"LINEAGE ANALYSIS OF AXIS FORMATION UNDER NOVEL GRAVITY"
 07/18/1997 – 06/30/1998 FY98: \$0 Total: \$147,356
Prin. Invest.: S HUANG
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 6081 GEORGE WASHINGTON UNIVERSITY **3602**
STUDY OF VENUS NEUTRAL UPPER ATMOSPHERE USING MAGE
 08/11/1997 – 11/30/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: D KEATING
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6415 GEORGE WASHINGTON UNIVERSITY **3603**
PROPOSAL FOR A SURVEY OF DISASTER MANAGEMENT PROJECT RESULTS AND REQUIREMENTS
 10/30/1997 – 10/31/1998 FY98: \$24,938 Total: \$24,938
Prin. Invest.: J S MERRICK
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6978 GEORGE WASHINGTON UNIVERSITY **3604**
LIFE IN THE UNIVERSE: THE EMERGENCE OF ASTROBIOLOGY
 04/09/1998 – 03/31/1999 FY98: \$15,000 Total: \$15,000
Prin. Invest.: J LOGSDON
Tech. Officer: GSFC/M MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 8 1294 GEORGE WASHINGTON UNIVERSITY **3605**
FORWARD INCENTIVES FOR PRIVATE FINANCING OF THE REUSABLE LAUNCH VEHICLE
 04/17/1996 – 06/30/1997 FY98: \$0 Total: \$97,709
Prin. Invest.: J M LOGSTON
Tech. Officer: MSFC/R D ROMANS
CASE Category: 49 – ENGINEERING, OTHER

NAGW 4516 GEORGE WASHINGTON UNIVERSITY **3606**
LINEAGE ANALYSIS OF AXIS FORMATION UNDER NOVEL GRAVITY
 05/13/1995 – 09/30/1997 FY98: \$0 Total: \$282,484
Prin. Invest.: S HUANG
Tech. Officer: HQ/T K SCOTT
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 4646 GEORGE WASHINGTON UNIVERSITY **3607**
RESEARCH INTO ECONOMIC METHODOLOGY AND MODELS FOR ASSESSING IMPACTS OF NASA LIFE SCIENCE RESEARCH
 07/28/1995 – 04/30/1998 FY98: \$0 Total: \$149,150
Prin. Invest.: H R HERTZFELD
Tech. Officer: HQ/V R THORNE
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 4873 GEORGE WASHINGTON UNIVERSITY **3608**
POTENTIAL CONTRIBUTIONS OF EARTH OBSERVATIONS TO MEETING THE CHALLENGES OF ENVIRONMENTAL SECURITY
 12/18/1995 – 07/01/1997 FY98: \$0 Total: \$274,966
Prin. Invest.: R A WILLIAMSON
Tech. Officer: HQ/R C HARRISS, HQ/N MAYNARD
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4927 GEORGE WASHINGTON UNIVERSITY **3609**
SCIENCE AND ENGINEERING APPRENTICE PROGRAM
 02/20/1996 – 03/31/1997 FY98: \$0 Total: \$23,326
Prin. Invest.: D KRUPSAW
Tech. Officer: HQ/P BOELLNER
CASE Category: 49 – ENGINEERING, OTHER

NAS 1 19699 GEORGE WASHINGTON UNIVERSITY **3610**
AERONAUTICAL, ASTRONAUTICAL, MATERIALS SCIENCE, COMPUTER SCIENCE AND RELATED DISCIPLINE SUPPORT
 08/07/1992 – 08/07/1998 FY98: \$0 Total: \$384,439
Prin. Invest.:
Tech. Officer: LARC/R L YANG, LARC/E J PRIOR
CASE Category: 41 – AERONAUTICAL ENGR

NAS 3 97137 GEORGE WASHINGTON UNIVERSITY **3611**
RESEARCH FOR SATELLITE AND TERRESTRIAL INTEROPERABILITY
 05/07/1997 – 04/30/1998 FY98: \$49,871 Total: \$149,338
Prin. Invest.: B I EDELSON, R DIETZ, N R HELM
Tech. Officer: LERC/S W MAINGER, LERC/K B BHASIN
CASE Category: 49 – ENGINEERING, OTHER

NCC 1 24 GEORGE WASHINGTON UNIVERSITY **3612**
PROGRAMS OF RESEARCH IN FLIGHT SCIENCES
 08/08/1979 – 02/28/1999 FY98: \$163,741 Total: \$3,552,311
Prin. Invest.: H LIEBOWITZ, J L WHITESIDES
Tech. Officer: LARC/R T BRIGHT
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 29 GEORGE WASHINGTON UNIVERSITY **3613**
RESEARCH PROGRAM IN FLIGHT DYNAMICS IN THE JIAPS AT THE NASA LANGLEY RESEARCH CENTER
 11/16/1979 – 11/30/1998 FY98: \$185,000 Total: \$2,739,271
Prin. Invest.: H LIEBOWITZ
Tech. Officer: LARC/P C MURPHY, LARC/P C MURPHY
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 47 GEORGE WASHINGTON UNIVERSITY **3614**
CORE PROGRAM IN THE JOINT INSTITUTE FOR ADVANCEMENT OF FLIGHT SCIENCES AT THE NASA-LANGLEY RESEARCH CENTER
 11/05/1980 – 10/31/1998 FY98: \$120,000 Total: \$5,209,012
Prin. Invest.: J L WHITESIDES, H W LIEBOWITZ
Tech. Officer: LARC/R L YANG, LARC/M F CARD
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 104 GEORGE WASHINGTON UNIVERSITY **3615**
A PROGRAM OF RESEARCH & EDUCATION IN ASTRONAUTICS IN JIAPS
 04/30/1986 – 01/31/1999 FY98: \$93,000 Total: \$2,134,643
Prin. Invest.: R H TOLSON
Tech. Officer: LARC/L F ROWELL
CASE Category: 42 – ASTRONAUTICAL ENGR

NCC 1 208 GEORGE WASHINGTON UNIVERSITY **3616**
PROGRAM OF RESEARCH AND EDUCATION IN AEROSPACE STRUCTURES
 12/20/1994 – 03/31/1999 FY98: \$100,000 Total: \$531,037
Prin. Invest.: R H TOLSON
Tech. Officer: LARC/E C WYNNE
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 217 GEORGE WASHINGTON UNIVERSITY **3617**
EXPERIMENTS IN THE THERMAL AND FLUID SCIENCES IN THE JOINT INSTITUTE FOR ADVANCEMENT OF FLIGHT
 09/11/1995 – 04/14/1999 FY98: \$163,508 Total: \$395,341
Prin. Invest.: A L CUTLER
Prin. Invest.: NONE
Tech. Officer: LARC/G S DISKIN, LARC/M W SMITH
CASE Category: 41 – AERONAUTICAL ENGR

NCC 3 613 GEORGE WASHINGTON UNIVERSITY **3618**
SATELLITE COMMUNICATIONS NETWORKS AND INTEROPERABILITY RESEARCH
 04/29/1998 – 02/04/1999 FY98: \$167,000 Total: \$167,000
Prin. Invest.: B I EDELSON, H J HELGERT, N R HELM
Tech. Officer: LERC/S W MAINGER, LERC/K B BHASIN
CASE Category: 49 – ENGINEERING, OTHER

NCC 5 51 GEORGE WASHINGTON UNIVERSITY **3619**
PROGRAM FOR RESEARCH AND EDUCATION IN SPACE TECHNOLOGY
 12/14/1992 – 05/31/1999 FY98: \$72,548 Total: \$2,778,621
Prin. Invest.: G FRIEDER, N BEDEWI
Tech. Officer: GSFC/T E HUBER, GSFC/J R ROBINSON
CASE Category: 42 – ASTRONAUTICAL ENGR

NCC 5 53 GEORGE WASHINGTON UNIVERSITY **3620**
DISTRIBUTION AND STRUCTURE OF BIOMASS IN BOREAL FOREST ECOSYSTEMS
 06/17/1993 – 12/31/1998 FY98: \$0 Total: \$171,351
Prin. Invest.: R I LANG
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 40056 GEORGE WASHINGTON UNIVERSITY **3621**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 03/01/1995 – 05/30/1997 FY98: \$0 Total: \$341,000
Prin. Invest.: J M LOGSDON
Tech. Officer: H J E T SCHWARTZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 2 52223 GEORGE WASHINGTON UNIVERSITY **3622**
SCIENCE & ENGINEERING APPRENTICE PROGRAM
 06/05/1997 – 05/31/1999 FY98: \$26,019 Total: \$50,519
Prin. Invest.: M KRUPSAW
Tech. Officer: AIC/J G GRIGGS, ARC/T WILSON
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NGT 5 30 GEORGE WASHINGTON UNIVERSITY **3623**
IMAGE RESTORATION AND NOISE REMOVAL IN HOLOGRAPHIC DATA
 07/15/1996 – 05/14/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: M I LOEW
Tech. Officer: GSFC/G A SOFFEN, GSFC/J DORBAND
CASE Category: 22 – COMPUTER SCIENCE

NGT 5 40058 GEORGE WASHINGTON UNIVERSITY **3624**
THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 02/14/1997 – 01/28/1999 FY98: \$212,500 Total: \$382,500
Prin. Invest.: J M LOGSDON
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6356 GEORGETOWN UNIVERSITY **3625**
HUMAN ENZYMAIC REPAIR OF RADIATION-INDUCED DNA BR
 09/29/1997 - 02/14/1999 FY98: \$0 Total: \$165,624
Prin. Invest.: T JORGENSEN
Tech. Officer: GSFC/B SIEGEL
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4395 GEORGETOWN UNIVERSITY **3626**
3D ORAM DOSIMETER FOR SPACE RADIATION ENVIRONMENTS
 04/19/1995 - 09/13/1998 FY98: \$0 Total: \$205,399
Prin. Invest.: M MOSCOVITCH
Tech. Officer: HQ/F M SULZMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 30043 GEORGETOWN UNIVERSITY **3627**
SURFACE CHEMISTRY OF POLAR STRATOSPHERIC CLOUD PAR
 12/30/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: J M HICKS
Tech. Officer: GSFC/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2015 HOWARD UNIVERSITY **3628**
INVESTIGATION OF THE RELATIONSHIP OF VORTEX GENERATED SOUND AND AIRFRAME
 03/03/1998 - 10/31/1998 FY98: \$20,000 Total: \$20,000
Prin. Invest.: A R PRITCHETT
Tech. Officer: LARC/M MACARAEG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2019 HOWARD UNIVERSITY **3629**
STRUCTURE-FUNCTION RELATIONSHIPS OF IMPACT-MODIFIED CYANATE ESTER RESINS
 03/13/1998 - 03/15/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: W E COLLINS, NONE
Tech. Officer: LARC/H L BELVIN, LARC/J W CONNELL
CASE Category: 43 - CHEMICAL ENGR

NAG 3 1445 HOWARD UNIVERSITY **3630**
HOWARD UNIVERSITY/NASA LEWIS COOPERATIVE RESEARCH STUDIES
 03/25/1993 - 08/19/1997 FY98: \$1 Total: \$801,963
Prin. Invest.: R REISS
Tech. Officer: LERC/D F NOGA
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1675 HOWARD UNIVERSITY **3631**
THE HYBRID TURBINE-ELECTRIC VEHICLE CONTROL SYSTEM S
 10/14/1994 - 10/31/1996 FY98: -\$572 Total: \$99,428
Prin. Invest.: J A MOMOH
Tech. Officer: LERC/L A VITERNA
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1677 HOWARD UNIVERSITY **3632**
FREE RADICAL SPECTROSCOPY AND KINETICS IN MICROGRAVITY COMBUSTION
 10/15/1994 - 10/14/1999 FY98: \$98,912 Total: \$362,271
Prin. Invest.: P MISRA
Tech. Officer: LERC/N D PILTCH
CASE Category: 13 - PHYSICS

NAG 3 1907 HOWARD UNIVERSITY **3633**
DETERMINATION OF THERMAL STATE OF CHARGE IN SOLAR HEAT RECEIVERS
 05/21/1996 - 08/21/1998 FY98: \$0 Total: \$200,000
Prin. Invest.: E K GLAPKE
Tech. Officer: LERC/T KERSLAKE
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1931 HOWARD UNIVERSITY **3634**
ADVANCED INTELLIGENT SYSTEM APPLICATION TO LOAD FORM RECASTING & CONTROL FOR HYBRID ELECTRIC BUS
 07/24/1996 - 05/22/1999 FY98: \$0 Total: \$189,000
Prin. Invest.: J A MOMOH
Tech. Officer: LERC/L VITERNA
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1978 HOWARD UNIVERSITY **3635**
AEROSPACE POWER SYSTEM AUTOMATION
 10/25/1996 - 10/24/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: J A MOMOH
Tech. Officer: LERC/J L DOLCE
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2027 HOWARD UNIVERSITY **3636**
GROWTH AND REALIZATION OF DEVICES IN LARGE AREA CUBIC SIC
 04/04/1997 - 09/30/1997 FY98: \$0 Total: \$101,854
Prin. Invest.: M G SPENCER
Tech. Officer: LERC/J A POWELL
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2030 HOWARD UNIVERSITY **3637**
EXPERIMENTAL IMPLEMENTATION OF HIGH PERFORMANCE AC DRIVES USING NEURAL DESIGNS
 04/04/1997 - 09/30/1998 FY98: \$70,000 Total: \$140,000
Prin. Invest.: A RUBARI, NONE
Tech. Officer: LERC/D F NOGA, LERC/D M KAW KAM
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2173 HOWARD UNIVERSITY **3638**
GROWTH OF REALIZATION OF DEVICES IN LARGE AREA CUBIC SIC
 06/09/1998 - 02/01/1999 FY98: \$75,000 Total: \$75,000
Prin. Invest.: M G SPENCER
Tech. Officer: LERC/J A POWELL
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 1017 HOWARD UNIVERSITY **3639**
SUPERCONDUCTING MATERIALS FOR SPACE APPLICATIONS
 10/15/1987 - 02/14/1998 FY98: \$0 Total: \$1,459,000
Prin. Invest.: A N THORPE, H HOJAJI, A BARKATT
Tech. Officer: GSFC/S R BREON, GSFC/M D JHABVALA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1049 HOWARD UNIVERSITY **3640**
RESEARCH RELATIVE TO OPTICALLY CONTROLLED MILLIMETER WAVE DEVICES
 05/15/1988 - 12/31/1996 FY98: \$0 Total: \$510,961
Prin. Invest.: R CHOWDHARY, Y WANG, C E LEINKRAM
Tech. Officer: GSFC/A S BURGESS
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 3141 HOWARD UNIVERSITY **3641**
CHARACTERIZATION, EVALUATION AND FABRICATION OF HIGH TEMPERATURE SUPERCONDUCTING MATERIALS FOR ...
 11/03/1995 - 11/14/1998 FY98: \$0 Total: \$426,000
Prin. Invest.: A N THORPE
Tech. Officer: GSFC/M DIPIRRO
CASE Category: 11 - ASTRONOMY

NAG 5 3156 HOWARD UNIVERSITY **3642**
APPLIED RESEARCH STUDY AND REPORT OF REUSABLE SOFTWARE COMPONENTS.
 02/01/1996 - 12/14/1996 FY98: \$0 Total: \$10,740
Prin. Invest.: R J LEACH
Tech. Officer: GSFC/J N BRUNER, GSFC/J T KOSLOSKY
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 3921 HOWARD UNIVERSITY **3643**
APPLIED RESEARCH, STUDY AND REPORT OF "RESEARCH IN COST MODELING" REFERENCE UNSOLICITED PROPOSALCON
 02/19/1997 - 02/14/1998 FY98: \$0 Total: \$11,235
Prin. Invest.: A MARSCHER
Tech. Officer: GSFC/J SWANK
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4764 HOWARD UNIVERSITY **3644**
LABORATORY STUDIES OF THE PHOTOCHEMISTRY OF ACETYL TITAN'S ATMOSPHERE
 06/13/1997 - 05/31/1998 FY98: \$0 Total: \$45,000
Prin. Invest.: D OKABE
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6066 HOWARD UNIVERSITY **3645**
THE DEVELOPMENT OF A NEW GENERATION TRAPPED RADIAT
 07/28/1997 - 07/31/1999 FY98: \$30,000 Total: \$125,299
Prin. Invest.: R BOURGIN
Tech. Officer: GSFC/S FUNG
CASE Category: 21 - MATHEMATICS

NAG 5 6825 HOWARD UNIVERSITY **3646**
PHOTOCHEMISTRY OF ACETYLENES RELEVANT TO TITAN'S ATMOSPHERE
 01/12/1998 - 12/31/1998 FY98: \$45,000 Total: \$45,000
Prin. Invest.: H OKABE
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 6835 HOWARD UNIVERSITY **3647**
LABORATORY STUDIES OF NITRILES IN TITAN'S ATMOSPHERE: CYANOACETYLENES AND C3N
 01/07/1998 - 12/31/1998 FY98: \$64,400 Total: \$64,400
Prin. Invest.: J HALPERN
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7384 HOWARD UNIVERSITY **3648**
PUBLIC SERVICE INTERN PROGRAM
 05/13/1998 - 05/14/1999 FY98: \$71,700 Total: \$71,700
Prin. Invest.: D WOODARD
Tech. Officer: GSFC/D MENCHAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7670 HOWARD UNIVERSITY **3649**
THIS EFFORT FOCUSES ON THE KNOWLEDGE ACQUISITION PROCESSES FOR SOFTWARE ENGINEERING BASELINING AND
 09/28/1998 - 07/30/1999 FY98: \$18,131 Total: \$18,131
Prin. Invest.: J T RIMBLE
Tech. Officer: GSFC/H E KEA
CASE Category: 22 - COMPUTER SCIENCE

NAG 9 977 HOWARD UNIVERSITY **3650**
CAFFEINE METABOLISM-THE PHARMACOKINETICS OF SPACE FLIGHT
 09/30/1997 - 11/31/1998 FY98: \$30,900 Total: \$226,230
Prin. Invest.: M N COOMES
Tech. Officer: J C/L PUTCHA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 785 HOWARD UNIVERSITY **3651**
PHOTOCHEMISTRY OF ACETYLENES - LAB STUDIES
 08/01/1985 - 06/30/1998 FY98: \$0 Total: \$604,072
Prin. Invest.: H OKABE
Tech. Officer: H W/J T BERGSTRALH, HQ/W L QUARIDE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 2950 HOWARD UNIVERSITY **3652**
CENTER FOR THE STUDY OF TERRESTRIAL AND EXTRATERRESTRIAL ATMOSPHERES
 03/06/1992 - 12/31/1996 FY98: \$0 Total: \$8,724,936
Prin. Invest.: A F THORNE
Tech. Officer: H W/N E MASSENBERS, HQ/S HARTMAN
CASE Category: 13 - PHYSICS

NCC 3 571 HOWARD UNIVERSITY **3653**
EXPERIMENTAL EVALUATION OF MOTOR DRIVE TECHNOLOGIES FOR FUTURE AEROSPACE APPLICATIONS
 08/01/1997 - 07/31/1999 FY98: \$152,994 Total: \$312,543
Prin. Invest.: A F UBAAI, M E ELBULUK
Tech. Officer: LERC/M D KANKAM
CASE Category: 45 - ELECTRICAL ENGR

NCC 5 184 HOWARD UNIVERSITY **3654**
TERRESTRIAL AND EXTRATERRESTRIAL ATMOSPHERES
 03/12/1997 - 02/28/1999 FY98: \$999,794 Total: \$1,998,988
Prin. Invest.: A N THORPE
Tech. Officer: GSFC/G A SOFFEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 192 HOWARD UNIVERSITY **3655**
A CHANGE MANAGEMENT INTERVENTION IN THE MUSPIN PROGRAM
 05/15/1997 - 05/14/1998 FY98: \$0 Total: \$55,000
Prin. Invest.: E CORSEY
Tech. Officer: GSFC/J HARRINGTON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 197 HOWARD UNIVERSITY **3656**
CSTEA HBCU ACADEMIC AND RESEARCH CONSORTIUM (CHARC)
 05/22/1997 - 05/31/1999 FY98: \$550,000 Total: \$1,650,000
Prin. Invest.: A N THORPE
Tech. Officer: GSFC/W R HOEGY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NASA'S UNIVERSITY PROGRAM

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| <p>NCC 5 208 HOWARD UNIVERSITY 3657 FUNDING FOR PUBLIC SERVICE INTERN PROGRAM 06/17/1997 – 05/14/1998 FY98: \$30,606 Total: \$111,266 Prin. Invest.: D WOODARD Tech. Officer: GSFC/D MENCHAN CASE Category: 49 – ENGINEERING, OTHER</p> | <p>NAG 1 2103 THE CATHOLIC UNIVERSITY OF AMERICA 3665 COCKPIT ADAPTIVE AUTOMATION AND PILOT PERFORMANCE 08/26/1998 – 07/31/1999 FY98: \$21,000 Total: \$21,000 Prin. Invest.: R PARASURAMAN Tech. Officer: LARC/A T POPE CASE Category: 69 – PSYCHOLOGY, OTHER</p> |
| <p>NGT 5 37 HOWARD UNIVERSITY 3658 1997 ASEE – NASA SUMMER FACULTY FELLOWSHIP PROGRAM 04/01/1997 – 03/31/1998 FY98: \$8,000 Total: \$458,734 Prin. Invest.: J B HALPERN Tech. Officer: GSFC/G SOFFEN CASE Category: 99 – MULTI INTERDISCIPLINARY, OTHER</p> | <p>NAG 2 1096 THE CATHOLIC UNIVERSITY OF AMERICA 3666 DYNAMIC AUTOMATION TOOLS FOR AIR TRAFFIC MANAGEMENT 12/09/1996 – 11/30/1998 FY98: \$327,688 Total: \$634,739 Prin. Invest.: R PARASURAMAN Tech. Officer: ARC/K M CORKER, ARC/M R ROSEKEND CASE Category: 69 – PSYCHOLOGY, OTHER</p> |
| <p>NGT 5 55 HOWARD UNIVERSITY 3659 THE INFLUENCE OF SEA SURFACE TEMPERATURE ON THE ON JULIAN OSCILLATION WITHIN AN AQUAPLANET MODEL 07/25/1997 – 06/30/1999 FY98: \$11,000 Total: \$33,000 Prin. Invest.: J LINDESEY Tech. Officer: GSFC/M SUAREZ CASE Category: 31 – ATMOSPHERIC SCIENCE</p> | <p>NAG 5 780 THE CATHOLIC UNIVERSITY OF AMERICA 3667 ACTIVE CONTROL OF ROBOT MANIPULATOR COMPLIANCE 05/15/1986 – 02/28/1999 FY98: \$10,000 Total: \$518,426 Prin. Invest.: C C NGUYEN Tech. Officer: GSFC/L PURVES CASE Category: 45 – ELECTRICAL ENGINEERING</p> |
| <p>NCC 5 78 THE AMERICAN UNIVERSITY 3660 DEVELOPMENT OF STATE OF THE ART SOLID STATE LASERS FOR ALTIMETRY 08/26/1994 – 02/28/1998 FY98: \$24,057 Total: \$427,384 Prin. Invest.: R B KAY, B COYLE Tech. Officer: GSFC/T W ZAGWODSKI CASE Category: 13 – PHYSICS</p> | <p>NAG 5 1413 THE CATHOLIC UNIVERSITY OF AMERICA 3668 OBSERVATIONS OBTAINED W/ GODDARD HIGH RESOLUTION 08/02/1990 – 05/14/1999 FY98: \$8,365 Total: \$281,006 Prin. Invest.: F C BRUHWEILER, C A GRADY Tech. Officer: GSFC/A SMITH CASE Category: 11 – ASTRONOMY</p> |
| <p>NCC 5 175 THE AMERICAN UNIVERSITY 3661 AN INVESTIGATION OF THE FORMATION GROWTH AND STRUCTURE OF ASTROPHYSICAL SILICATE DUST BY 12/09/1996 – 11/30/1998 FY98: \$0 Total: \$30,000 Prin. Invest.: N ROSCHER Tech. Officer: GSFC/J NUTH CASE Category: 11 – ASTRONOMY</p> | <p>NAG 5 1414 THE CATHOLIC UNIVERSITY OF AMERICA 3669 TIME-DEPENDENT MODEL TO CALCULATE TONIC & MOLECULAR 08/02/1990 – 05/14/1999 FY98: \$0 Total: \$327,210 Prin. Invest.: C H LYU, F C BRUHWEILER Tech. Officer: GSFC/A M SMITH CASE Category: 11 – ASTRONOMY</p> |
| <p>NCC 5 269 THE AMERICAN UNIVERSITY 3662 DEVELOPMENT OF STATE OF THE ART SOLID STATE LASERS FOR ALTIMETRY AND OTHER LIDAR APPLICATIONS 02/11/1998 – 02/14/1999 FY98: \$251,352 Total: \$251,352 Prin. Invest.: R B KAY Tech. Officer: GSFC/J L BUFTON CASE Category: 13 – PHYSICS</p> | <p>NAG 5 2284 THE CATHOLIC UNIVERSITY OF AMERICA 3670 MORPHOLOGY OF LOCAL HELIUM VOID AND THE IONIZATION OF HELIUM IN THE LISM AND GALACTIC HALO 06/11/1993 – 06/14/1999 FY98: \$0 Total: \$351,892 Prin. Invest.: F C BRUHWEILER Tech. Officer: GSFC/R O LIVERSON CASE Category: 11 – ASTRONOMY</p> |
| <p>NGT 5 50003 THE AMERICAN UNIVERSITY 3663 DEVELOPMENT OF ND: YAG PASSIVELY Q SWITCHED MICROLASER FOR USE IN THE SATELLITE LASER RANGING 2000. 09/09/1996 – 08/31/1999 FY98: \$22,000 Total: \$66,000 Prin. Invest.: R B KAY Tech. Officer: GSFC/G A SOFFEN, GSFC/J DEGNAN CASE Category: 32 – GEOLOGICAL SCIENCE</p> | <p>NAG 5 2814 THE CATHOLIC UNIVERSITY OF AMERICA 3671 RESEARCH SUPPORT OF WIND MAGNETIC FIELD INSTRUMENT (MFI) 12/12/1994 – 09/14/1998 FY98: \$50,000 Total: \$251,700 Prin. Invest.: Y C WHANG Tech. Officer: GSFC/R P LEPPING CASE Category: 13 – PHYSICS</p> |
| <p>NAG 1 1296 THE CATHOLIC UNIVERSITY OF AMERICA 3664 AUTOMATION AND OPERATOR "COMPLACENCY" IN MONITORING 06/21/1991 – 04/30/1998 FY98: \$35,405 Total: \$772,229 Prin. Invest.: R PARASURAMAN Tech. Officer: LARC/A T POPE, LARC/J R COMSTOCK CASE Category: 69 – PSYCHOLOGY, OTHER</p> | <p>NAG 5 2881 THE CATHOLIC UNIVERSITY OF AMERICA 3672 INVESTIGATION OF CORONAL LARGE SCALE STRUCTURE USING SPARTAN 201 DATA 01/30/1995 – 02/14/1998 FY98: \$23,238 Total: \$339,197 Prin. Invest.: M GUHATHAKURTA Tech. Officer: GSFC/R R FISHER CASE Category: 11 – ASTRONOMY</p> |

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| NAG 5 3037 THE CATHOLIC UNIVERSITY OF AMERICA 3673 A STUDY TO DETERMINE THE EFFECTS OF SPACE EXPLORATION ON THE FUTURE AND DIRECTION OF HUMAN CIVILIZATION 07/31/1995 - 08/14/1997 FY98: \$0 Total: \$25,000 Prin. Invest.: F C BRUHWEILER Tech. Officer: GSFC/Y KONDO CASE Category: 99 - MULTI INTERDISCIPLINARY | NAG 5 6026 THE CATHOLIC UNIVERSITY OF AMERICA 3681 DEVELOPMENT OF VERY LIGHT WEIGHT ACTIVE OPTICS 09/04/1997 - 01/14/1998 FY98: \$0 Total: \$26,440 Prin. Invest.: F BRUHWEILER Tech. Officer: GSFC/C BOWERS CASE Category: 11 - ASTRONOMY |
| NAG 5 3378 THE CATHOLIC UNIVERSITY OF AMERICA 3674 OBSERVATIONS AND ANALYSIS OF DATA OBTAINED BY THE SPACE TELESCOPE IMAGING SPECTROGRAPH 08/28/1996 - 09/30/1999 FY98: \$185,059 Total: \$300,615 Prin. Invest.: A BOGGESE Tech. Officer: GSFC/T GULL CASE Category: 11 - ASTRONOMY | NAG 5 6139 THE CATHOLIC UNIVERSITY OF AMERICA 3682 NEAR-SURFACE MANIFESTATIONS OF GEO-EFFECTIVE SOLAR 09/08/1997 - 01/14/2000 FY98: \$67,877 Total: \$132,877 Prin. Invest.: D GOPALSWAMY Tech. Officer: GSFC/W J WAGNER CASE Category: 11 - ASTRONOMY |
| NAG 5 3487 THE CATHOLIC UNIVERSITY OF AMERICA 3675 MEASURING BORON ABUNDANCES WITH IUE SPECTRA USING LINES 11/25/1996 - 11/14/1998 FY98: \$0 Total: \$31,905 Prin. Invest.: F C BRUHWEILER Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY | NAG 5 6239 THE CATHOLIC UNIVERSITY OF AMERICA 3683 A STUDY OF PHYSICAL PROCESSES IN THE ATMOSPHERE OF 09/08/1997 - 09/30/1999 FY98: \$107,360 Total: \$175,359 Prin. Invest.: R D ROBINSON Tech. Officer: GSFC/K G CARPENTER CASE Category: 11 - ASTRONOMY |
| NAG 5 4103 THE CATHOLIC UNIVERSITY OF AMERICA 3676 OBSERVATIONS AND ANALYSIS OF SEYFERT GALAXIES WITH THE SPACE TELESCOPE IMAGING SPECTROGRAPH 03/31/1997 - 08/31/1999 FY98: \$207,000 Total: \$428,201 Prin. Invest.: S KRAEMER Tech. Officer: GSFC/T GULL CASE Category: 31 - ATMOSPHERIC SCIENCE | NAG 5 6260 THE CATHOLIC UNIVERSITY OF AMERICA 3684 INTERPRETATION OF WHITE LIGHT CORONOGRAPH DATA MODEL 08/19/1997 - 06/10/1998 FY98: \$0 Total: \$47,700 Prin. Invest.: D GUHATHAKURTA Tech. Officer: GSFC/W J WAGNER CASE Category: 13 - PHYSICS |
| NAG 5 4345 THE CATHOLIC UNIVERSITY OF AMERICA 3677 EXPERIMENTAL STUDIES OF INGENOUS PROCESSES IN ENST 04/09/1997 - 03/31/1999 FY98: \$75,000 Total: \$150,000 Prin. Invest.: D DICKINSON Tech. Officer: GSFC/D NAVA CASE Category: 11 - ASTRONOMY | NAG 5 6674 THE CATHOLIC UNIVERSITY OF AMERICA 3685 THE NATURE AND ORIGIN OF THE HGMN PHENOMENA 11/21/1997 - 05/31/1999 FY98: \$90,000 Total: \$90,000 Prin. Invest.: F BRUHWEILER Tech. Officer: GSFC/D LECKRONE CASE Category: 11 - ASTRONOMY |
| NAG 5 4362 THE CATHOLIC UNIVERSITY OF AMERICA 3678 SPATIAL-SPECTRAL MAPPING OF CO EMISSION IN COMETS HALE-BOPP, AND COMPARISON WITH OTHER ORGANICS 04/21/1997 - 03/31/1999 FY98: \$39,152 Total: \$82,534 Prin. Invest.: D DISANTI Tech. Officer: GSFC/W HUEBNER CASE Category: 11 - ASTRONOMY | NAG 5 6733 THE CATHOLIC UNIVERSITY OF AMERICA 3686 X-RAY CORRELATED VARIATIONS IN X PER 12/16/1997 - 12/31/1998 FY98: \$35,000 Total: \$35,000 Prin. Invest.: M SMITH Tech. Officer: GSFC/R POLIDAN CASE Category: 11 - ASTRONOMY |
| NAG 5 4418 THE CATHOLIC UNIVERSITY OF AMERICA 3679 STUDIES OF LONG-PERIOD VARIABILITY IN NEUTRON-STAR 05/02/1997 - 04/30/1998 FY98: \$0 Total: \$8,332 Prin. Invest.: F LANG Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY | NAG 5 7078 THE CATHOLIC UNIVERSITY OF AMERICA 3687 MAPPING OF HIGH-ALTITUDE OZONE IN THE ATMOSPHERE OF MARS 02/25/1998 - 02/28/1999 FY98: \$36,533 Total: \$36,533 Prin. Invest.: V A KLASNOPOLSKY Tech. Officer: GSFC/T MORGAN CASE Category: 11 - ASTRONOMY |
| NAG 5 4940 THE CATHOLIC UNIVERSITY OF AMERICA 3680 INTERPRETIVE TOOLS FOR ANALYSIS OF CORONAL IMAGES 06/23/1997 - 05/31/1999 FY98: \$25,708 Total: \$91,208 Prin. Invest.: D GUHATHAKURTA Tech. Officer: GSFC/W J WAGNER CASE Category: 13 - PHYSICS | NAG 5 7130 THE CATHOLIC UNIVERSITY OF AMERICA 3688 TESTING AND IMPLEMENTATION OF A ROBUST ALGORITHM FOR GPS ATTITUDE DETERMINATION 03/03/1998 - 11/30/1998 FY98: \$14,471 Total: \$14,471 Prin. Invest.: D CRASIDIS Tech. Officer: GSFC/G LIGHTSEY CASE Category: 42 - ASTRONAUTICAL ENGR |

NAG 5 7132 THE CATHOLIC UNIVERSITY OF AMERICA **3689**
STUDIES OF THE DISTRIBUTION OF AEROSOLS AND THEIR EFFECT ON
MARTIAN ATMOSPHERIC DYNAMICS USING M
 03/06/1998 – 02/28/1999 FY98: \$59,700 Total: \$59,700
 Prin. Invest.: D D SMITH
 Tech. Officer: GSFC/J PEARL
 CASE Category: 11 – ASTRONOMY

NAG 5 7238 THE CATHOLIC UNIVERSITY OF AMERICA **3690**
A STUDY OF THE COOLER SOLAR PLASMAS USING MICROWAVE DATA IN
CONJUNCTION WITH SOHO OBSERVATIONS
 04/08/1998 – 04/30/1999 FY98: \$59,400 Total: \$59,400
 Prin. Invest.: N GOPALSWAMY
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 – ASTRONOMY

NAG 5 7412 THE CATHOLIC UNIVERSITY OF AMERICA **3691**
INVESTIGATION OF CORONAL LARGE SCALE STRUCTURE UTILIZING
SPARTAN 201 DATA
 06/02/1998 – 02/14/1999 FY98: \$52,688 Total: \$52,688
 Prin. Invest.: M GUHATHAKURTA
 Tech. Officer: GSFC/R R FISHER
 CASE Category: 11 – ASTRONOMY

NAG 5 7413 THE CATHOLIC UNIVERSITY OF AMERICA **3692**
INVESTIGATION OF THE SOLAR CORONA WITH THE SPARTAN 201 WHITE-
LIGHT CORONAGRAPH SYSTEM
 06/05/1998 – 05/14/1999 FY98: \$70,728 Total: \$70,728
 Prin. Invest.: S GIBSON Prin. Invest.: NONE
 Tech. Officer: GSFC/R R FISHER
 CASE Category: 11 – ASTRONOMY

NAG 5 7624 THE CATHOLIC UNIVERSITY OF AMERICA **3693**
REACTION WHEEL JITTER REDUCTION THROUGH ACTIVE CONTROL OF
MAGNETIC BEARINGS
 08/03/1998 – 01/31/1999 FY98: \$21,207 Total: \$21,207
 Prin. Invest.: J CRASSIDIS
 Tech. Officer: GSFC/G BROWN
 CASE Category: 45 – ELECTRICAL ENGR

NAG 5 7700 THE CATHOLIC UNIVERSITY OF AMERICA **3694**
RESEARCH SUPPORT OF WIND MAGNETIC FIELD INSTRUMENT
 09/22/1998 – 09/15/1999 FY98: \$50,000 Total: \$50,000
 Prin. Invest.: Y WHANG
 Tech. Officer: GSFC/J SLAVIN
 CASE Category: 11 – ASTRONOMY

NCC 2 994 THE CATHOLIC UNIVERSITY OF AMERICA **3695**
PHOTOCHEMISTRY OF PLUTO'S ATMOSPHERE
 05/22/1997 – 12/14/1998 FY98: \$41,380 Total: \$81,380
 Prin. Invest.: V A KRASNOPOLSKY
 Tech. Officer: ARC/D P CRUIKSHANK, ARC/F C WITTEBORN
 CASE Category: 11 – ASTRONOMY

NCC 5 68 THE CATHOLIC UNIVERSITY OF AMERICA **3696**
STUDIES OF ELEMENTARY REACTIONS OF CHEMICAL IMPORTANCE IN
THE ATMOSPHERES OF PLANETS
 04/28/1994 – 04/30/1998 FY98: \$271,986 Total: \$527,750
 Prin. Invest.: F L NESBITT
 Tech. Officer: GSFC/L J STIEF
 CASE Category: 12 – CHEMISTRY

NCC 5 83 THE CATHOLIC UNIVERSITY OF AMERICA **3697**
RESEARCH OF COSMIC HARD X-RAYS AND GAMMA RAYS
 03/28/1995 – 03/31/1999 FY98: \$551,452 Total: \$1,476,880
 Prin. Invest.: C WERTZ, R STARR
 Tech. Officer: GSFC/L E ORWIG
 CASE Category: 11 – ASTRONOMY

NCC 5 130 THE CATHOLIC UNIVERSITY OF AMERICA **3698**
HIGH RESOLUTION SPECTROSCOPY OF COMETARY COMAE AND PLAN-
ETARY ATMOSPHERES: IMPLEMENTATION OF THE NEW...
 02/02/1996 – 03/01/1999 FY98: \$34,855 Total: \$145,152
 Prin. Invest.: M DISANTI, M A DISANTI
 Tech. Officer: GSFC/M J MUMMA
 CASE Category: 11 – ASTRONOMY

NCC 5 178 THE CATHOLIC UNIVERSITY OF AMERICA **3699**
PROVIDE FUNDING FOR THE PROPOSAL "CHEMISTRY OF PLAN REACTION
RATES AND REACTION PRODUCTS"
 01/22/1997 – 01/31/1999 FY98: \$0 Total: \$197,316
 Prin. Invest.: D J BOGAN
 Tech. Officer: GSFC/L J STIEF
 CASE Category: 12 – CHEMISTRY

NCC 5 210 THE CATHOLIC UNIVERSITY OF AMERICA **3700**
INFRARED SPECTROSCOPY OF COMETS: AN OBSERVATIONAL STUDY OF
COMETARY COMPOSITION AND ORIGIN.
 06/17/1997 – 05/31/1999 FY98: \$64,700 Total: \$122,800
 Prin. Invest.: N RUSSO
 Tech. Officer: GSFC/M J MUMMA
 CASE Category: 11 – ASTRONOMY

NCC 5 211 THE CATHOLIC UNIVERSITY OF AMERICA **3701**
AERONOMY OF PLANETARY AND COMETARY ATMOSPHERES: S
 06/24/1997 – 05/31/1999 FY98: \$82,954 Total: \$111,954
 Prin. Invest.: V KRASNOPOLSKY
 Tech. Officer: GSFC/M J MUMMA
 CASE Category: 11 – ASTRONOMY

NGT 70371 THE CATHOLIC UNIVERSITY OF AMERICA **3702**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 08/30/1994 – 06/30/1997 FY98: \$0 Total: \$66,000
 Prin. Invest.: F C BRUHWEILER
 Tech. Officer: HQ/D K RUSSELL
 CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NGT 1 52137 THE CATHOLIC UNIVERSITY OF AMERICA **3703**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/19/1996 – 06/30/1999 FY98: \$22,000 Total: \$54,000
 Prin. Invest.: J A DULEY, R PARASURAMAN
 Tech. Officer: LARC/P C SCHUTTE, LARC/A T POPE
 CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52190 THE CATHOLIC UNIVERSITY OF AMERICA **3704**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/20/1998 – 06/30/1999 FY98: \$10,000 Total: \$10,000
 Prin. Invest.: S M GALSTER, R PARASURAMAN
 Tech. Officer: LARC/P C SCHUTTE, LARC/A T POPE
 CASE Category: 69 – PSYCHOLOGY, OTHER

NGT 5 70000 THE CATHOLIC UNIVERSITY OF AMERICA **3705**
GRADUATE STUDENT RESEARCH PROGRAM - STUDENT: CHAR
 08/26/1997 - 06/30/1999 FY98: \$0 Total: \$22,000
Prin. Invest.: D D BRUHWEILER
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 13 - PHYSICS

NAG 5 3961 UNIVERSITY OF DISTRICT OF COLUMBIA **3706**
SCIENTIFIC RENEWAL
 02/18/1997 - 12/31/1998 FY98: \$75,000 Total: \$199,799
Prin. Invest.: W R COLEMAN
Tech. Officer: GSFC/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4724 UNIVERSITY OF DISTRICT OF COLUMBIA **3707**
SATURDAY ACADEMY PROGRAM
 06/19/1997 - 03/31/1999 FY98: \$590,094 Total: \$1,178,884
Prin. Invest.: W R COLEMAN
Tech. Officer: GSFC/L RANDOLPH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 2045 UNIVERSITY OF DISTRICT OF COLUMBIA **3708**
SATURDAY ACADEMY-ENGINEERING, MATHEMATICS AND COMPUTER SCIENCE FOR ACADEMICALLY TALENTED STUDENTS
 03/30/1990 - 03/31/1997 FY98: \$135,034 Total: \$3,228,954
Prin. Invest.: W R COLEMAN
Tech. Officer: HQ/Y B FREEMAN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 5 196 UNIVERSITY OF DISTRICT OF COLUMBIA **3709**
PARTNERSHIP AWARD WITH MINORITY UNIVERSITIES AND C
 05/22/1997 - 05/31/1999 FY98: \$100,000 Total: \$300,000
Prin. Invest.: G WYCHE-MOORE
Tech. Officer: GSFC/E ENGMAN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

FLORIDA

NAG 5 3713 BETHUNE - COOKMAN COLLEGE **3710**
SCIENCE, ENGINEERING, AND MATHEMATICS SATURDAY ACADEMICS PROGRAM (SEMSAP)
 03/10/1997 - 08/31/1997 FY98: \$0 Total: \$203,250
Prin. Invest.: T R NICHOLSON, SR.
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 195 BETHUNE - COOKMAN COLLEGE **3711**
OPERATION OF THE CENTER FOR SPACE EDUCATION
 09/11/1996 - 09/30/1999 FY98: \$223,000 Total: \$869,792
Prin. Invest.: G W BECKLES, A E LONG
Tech. Officer: KSC/S DUTCZAK
CASE Category: 41 - AERONAUTICAL ENGR

NAG10 220 BETHUNE - COOKMAN COLLEGE **3712**
NASA MINORITY INSTITUTION ENTREPRENEURIAL PARTNERSHIP GRANT
 06/27/1997 - 08/16/1999 FY98: \$607,000 Total: \$1,407,000
Prin. Invest.: A D TAYLOR
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 1843 ECKERD COLLEGE **3713**
EXPERIMENTAL STUDIES OF FAR-INFRARED SPECTRA OF COSMIC TYPE ICES
 12/16/1991 - 02/ 4/1997 FY98: -\$2,406 Total: \$27,094
Prin. Invest.: R L HUDSON
Tech. Officer: GSFC/M H MOORE, GSFC/J A NUTH
CASE Category: 11 - ASTRONOMY

NAG 5 6712 ECKERD COLLEGE **3714**
EXPERIMENTAL STUDIES OF THE INFRARED SPECTRA OF COSMIC-TYPE ICES
 12/22/1997 - 12/31/1998 FY98: \$8,000 Total: \$8,000
Prin. Invest.: D SON
Tech. Officer: GSFC/M MOORE
CASE Category: 11 - ASTRONOMY

NAG 8 1103 ECKERD COLLEGE **3715**
JOVE
 10/21/1994 - 05/31/1999 FY98: \$0 Total: \$102,260
Prin. Invest.: J B THOMPSON, S M STANCZYK
Tech. Officer: MSFC/F SIX
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG10 213 EDWARD WATERS COLLEGE **3716**
CLASSROOM OF THE FUTURE CENTER (COTF) MASTER SCIENCE TEACHER CERTIFICATION (MTCP)
 09/01/1997 - 08/31/1999 FY98: \$50,000 Total: \$250,000
Prin. Invest.: G BLCKINGHAM
Tech. Officer: KSC/E JOHNSON
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 5199 EMBRY-RIDDLE AERONAUTICAL UNIVERSITY **3717**
ICE CONTENT AND OOD-OXYGEN IN NOCTILUCENT-CLOUDS (ICON)
 06/18/1998 - 03/31/1999 FY98: \$122,421 Total: \$122,421
Prin. Invest.: P J EJPY
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NCA 1 133 EMBRY-RIDDLE AERONAUTICAL UNIVERSITY **3718**
1996 AGATE - GENERAL AVIATION
 07/23/1996 - 10/31/1998 FY98: \$1,316,000 Total: \$1,409,500
Prin. Invest.: S HAMPTON
Tech. Officer: LARC/B J HOLMES, LARC/M H DURHAM
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1787 FLA INTERNATIONAL UNIVERSITY **3719**
VIBRATION CONTROL FOR FLEXIBLE STRUCTURES BY MEANS OF VISCOELASTIC DAMPING AND SHAPE MEMORY ALLOY
 12/15/1995 - 10/31/1998 FY98: \$0 Total: \$150,565
Prin. Invest.: C LEVY, K WU
Tech. Officer: LARC/J J SINGH
CASE Category: 41 - MECHANICAL ENGR

NAG 5 2583 FLA INTERNATIONAL UNIVERSITY **3720**
SCATTERING OF METASTABLE ATOMS
 04/28/1994 - 08/31/1998 FY98: \$0 Total: \$214,297
Prin. Invest.: J W SHELTON, K A HARDY
Tech. Officer: GSFC/J J HILLMAN
CASE Category: 13 - PHYSICS

NAG 5 3071 FLA INTERNATIONAL UNIVERSITY **3721**
APPLICATION OF HIGH RESOLUTION DIGITAL TOPOGRAPHIC DATA TO THE DETECTION OF INCIPIENT SINKHOLE...
 09/15/1995 – 09/14/1998 FY98: \$70,979 Total: \$222,164
Prin. Invest.: D WHITMAN
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3124 FLA INTERNATIONAL UNIVERSITY **3722**
REMOTE SENSING OF PHYTOPLANKTON DYNAMICS USING AVIRIS DERIVED SPECTRAL AND IMAGE DATA
 10/17/1995 – 10/31/1997 FY98: \$0 Total: \$68,248
Prin. Invest.: L L RICHARDSON, V AMBROSIA
Tech. Officer: GSFC/K R ARRIGO, GSFC/C R MCCLAIN
CASE Category: 33 – OCEANOGRAPHY

NAG 5 3826 FLA INTERNATIONAL UNIVERSITY **3723**
BASIC RESEARCH IN ATOMIC, MOLECULAR AND OPTICAL PHYSICS IN SUPPORT OF NASA STRATEGIC ENTERPRISES
 01/29/1997 – 01/31/1999 FY98: \$99,598 Total: \$199,196
Prin. Invest.: K HARDY
Tech. Officer: GSFC/R HARTLE
CASE Category: 11 – ASTRONOMY

NAG 5 6324 FLA INTERNATIONAL UNIVERSITY **3724**
INTERACTIVE VIDEO TELECONFERENCING
 09/08/1997 – 07/31/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: G ROIG
Tech. Officer: GSFC/M MATEU
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6531 FLA INTERNATIONAL UNIVERSITY **3725**
HIGH PERFORMANCE DATABASE MANAGEMENT WITH APPLICATION TO EARTH SCIENCES
 11/03/1997 – 05/31/1999 FY98: \$1,500,000 Total: \$1,500,000
Prin. Invest.: N RISHE
Tech. Officer: GSFC/J MALONE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6556 FLA INTERNATIONAL UNIVERSITY **3726**
MASTAP AWARD
 11/03/1997 – 08/31/1998 FY98: \$180,000 Total: \$180,000
Prin. Invest.: C BRAIN
Tech. Officer: GSFC/M MATEU
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6830 FLA INTERNATIONAL UNIVERSITY **3727**
THE FIU CENTER OF EXCELLENCE FOR RESEARCH AND INSTRUCTION IN REMOTE SENSING TECHNOLOGY
 01/20/1998 – 01/31/1999 FY98: \$90,000 Total: \$90,000
Prin. Invest.: D WITHMAN
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7325 FLA INTERNATIONAL UNIVERSITY **3728**
A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 04/24/1998 – 04/30/1999 FY98: \$1,400 Total: \$1,400
Prin. Invest.: J R WEBB
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAGW 4080 FLA INTERNATIONAL UNIVERSITY **3729**
HIGH PERFORMANCE DATABASE MANAGEMENT
 07/13/1994 – 05/31/1997 FY98: \$0 Total: \$1,800,000
Prin. Invest.: N RISHE
Tech. Officer: HQ/B L WHITE
CASE Category: 22 – COMPUTER SCIENCE

NAGW 4641 FLA INTERNATIONAL UNIVERSITY **3730**
MINORITIES ACHIEVING SUCCESS IN TEACHING MATHEMATICS AND SCIENCE
 07/19/1995 – 06/30/1997 FY98: \$0 Total: \$420,000
Prin. Invest.: C BRAIN
Tech. Officer: HQ/M MATEU
CASE Category: 21 – MATHEMATICS

NAGW 5043 FLA INTERNATIONAL UNIVERSITY **3731**
BLAZAR CONTINUUM VARIABILITY WORKSHOP
 04/30/1996 – 12/31/1996 FY98: -\$1 Total: \$5,599
Prin. Invest.: J R WEBB
Tech. Officer: HQ/R A STACHNIK
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG10 150 FLA INTERNATIONAL UNIVERSITY **3732**
UTILIZATION OF THE SFC DATABASE
 01/03/1995 – 01/08/1998 FY98: \$0 Total: \$224,843
Prin. Invest.: M A CENTENO
Tech. Officer: KSC/A M MITSKEVICH
CASE Category: 41 – AERONAUTICAL ENGR

NAG10 211 FLA INTERNATIONAL UNIVERSITY **3733**
INTENSIVE SCIENTIFIC INTERCURRICULAR ONSITE EDUCATION PROJECT V.I.S.I.O.N
 09/01/1997 – 02/28/1999 FY98: \$200,000 Total: \$600,000
Prin. Invest.: G ROIG
Tech. Officer: KSC/E JOHNSON
CASE Category: 49 – ENGINEERING, OTHER

NAG10 212 FLA INTERNATIONAL UNIVERSITY **3734**
APPLIED RESEARCH IN INDUSTRIAL & SYSTEMS ENGINEERING (ARISE) CENTER
 08/29/1997 – 12/31/1999 FY98: \$49,995 Total: \$249,978
Prin. Invest.: M A CENTENO
Tech. Officer: KSC/A MITSKEVICH
CASE Category: 49 – ENGINEERING, OTHER

NAG10 229 FLA INTERNATIONAL UNIVERSITY **3735**
CLCS DESIGN PROGRAM
 09/17/1997 – 05/31/1999 FY98: \$0 Total: \$61,847
Prin. Invest.: J JACKO, M RESNICK
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 22 – COMPUTER SCIENCE

NAG10 251 FLA INTERNATIONAL UNIVERSITY **3736**
MATHEMATICS, SCIENCE & TECH ACHIEVEMENT (MSTA)
 09/23/1998 – 09/22/2000 FY98: \$99,998 Total: \$99,998
Prin. Invest.: C MENDEZ
Tech. Officer: KSC/R MC KINNEY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 2 917 FLA INTERNATIONAL UNIVERSITY **3737**
AERONAUTICS LEARNING LABORATORY FOR SCIENCE TECHNOLOGY & RESEARCH (ALL STAR) NETWORK
 07/24/1995 - 06/30/1999 FY98: \$426,002 Total: \$1,184,843
Prin. Invest.: C LEVY
Tech. Officer: ARC/M J LEON, ARC/W C LIKENS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCCW 44 FLA INTERNATIONAL UNIVERSITY **3738**
STRATEGIC COMMERCIALIZATION & UTILIZATION INITIATIVE (SCUI)
 05/25/1994 - 04/30/1997 FY98: \$0 Total: \$1,199,596
Prin. Invest.: M A EBADIAN
Tech. Officer: HQ/A KAHN, HQ/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT10 52614 FLA INTERNATIONAL UNIVERSITY **3739**
NEW AUTOMATED WEB-BASED TRACKING SYSTEM
 09/05/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J A JACKO
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 22 - COMPUTER SCIENCE

NAG 1 1866 FLORIDA A&M UNIVERSITY **3740**
MICROMECHANICAL CHARACTERIZATION AND TEXTURE ANALYSIS OF DIRECT CAST TITANIUM ALLOY STRIP
 09/12/1996 - 09/30/1999 FY98: \$17,000 Total: \$214,956
Prin. Invest.: H GARMESTANI
Tech. Officer: LARC/B A BAUM
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1930 FLORIDA A&M UNIVERSITY **3741**
SHOCK WAVE DYNAMICS IN WEAKLY IONIZED PLASMAS
 05/29/1997 - 05/31/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: J A JOHNSON, III
Tech. Officer: LARC/A H AUSLENDER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 929 FLORIDA A&M UNIVERSITY **3742**
TURBULENCE MEASUREMENTS IN SUPERSONIC FLOW
 09/26/1994 - 12/31/1997 FY98: \$0 Total: \$240,000
Prin. Invest.: J A JOHNSON III
Tech. Officer: ARC/J G MARVIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1114 FLORIDA A&M UNIVERSITY **3743**
INTEGRATED DESIGN SYSTEMS TECHNOLOGY
 02/14/1997 - 09/30/1997 FY98: \$0 Total: \$299,502
Prin. Invest.: A KROTHAPALLI
Tech. Officer: ARC/C A SMITH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1663 FLORIDA A&M UNIVERSITY **3744**
BASIC STUDIES ON STOVL AIRCRAFT JET EFFECTS AND HOT GAS INGESTION
 09/15/1994 - 07/29/1999 FY98: \$218 Total: \$123,773
Prin. Invest.: A KROTHAPALLI
Tech. Officer: LERC/A L JOHNS, LERC/T J BIESIADNY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1759 FLORIDA A&M UNIVERSITY **3745**
A GRADUATE FELLOWSHIP COMPONENT TO AUGMENT PROGRAM IMAGE
 06/14/1995 - 11/3/1998 FY98: \$300,509 Total: \$901,527
Prin. Invest.: F S HUMPHRIES, F J FOREMAN
Tech. Officer: LERC/J E BOYD
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 1971 FLORIDA A&M UNIVERSITY **3746**
CUBIC BORON NITRIDE ALPHAVOLTAIC DEVICES
 09/21/1996 - 09/30/1999 FY98: \$170,000 Total: \$259,505
Prin. Invest.: S M DURBIN
Tech. Officer: LERC/G C RYBICKI
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2056 FLORIDA A&M UNIVERSITY **3747**
FLIGHT EFFECTS ON FORWARD RADIATED HSCT FAN NOISE FLIGHT EFFECTS ON FORWARD RADIATED HSCT FAN NOISE
 09/16/1997 - 05/4/1999 FY98: \$122,213 Total: \$202,119
Prin. Invest.: A K KROTHAPALLI
Tech. Officer: LERC/R P WOODWARD
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 3 2193 FLORIDA A&M UNIVERSITY **3748**
ROBUST FAULT DETECTION AND ISOLATION FOR NASA LAUNCH VEHICLES
 09/01/1998 - 08/11/2001 FY98: \$55,145 Total: \$55,145
Prin. Invest.: E G COLLINS
Tech. Officer: LERC/T GUO
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 3 2198 FLORIDA A&M UNIVERSITY **3749**
TURBULENCE BASED ICE PROTECTION SYSTEMS FOR SUPER-COOLED LIQUID DROPLETS
 09/10/1998 - 06/7/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: J A JOHNSON, III
Tech. Officer: LERC/M POTAPCZUK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 6631 FLORIDA A&M UNIVERSITY **3750**
PARTIAL DIFFERENTIAL EQUATION APPROACH TO ATOMIC AND MOLECULAR COLLISIONS
 12/22/1997 - 12/4/1998 FY98: \$91,600 Total: \$91,600
Prin. Invest.: B S SHAH
Tech. Officer: GSC/A TEMKIN
CASE Category: 13 - PHYSICS

NAGW 2930 FLORIDA A&M UNIVERSITY **3751**
CENTER FOR NONLINEAR AND NONEQUILIBRIUM AEROSCIENCE
 02/19/1992 - 12/11/1996 FY98: \$0 Total: \$7,702,066
Prin. Invest.: J A JOHNSON
Tech. Officer: HCS E MASSENBERG, HQ/S HARTMAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 214 FLORIDA A&M UNIVERSITY **3752**
DISCOVER - SB/NASA INTERSHIPS
 09/01/1997 - 08/31/1999 FY98: \$50,000 Total: \$250,000
Prin. Invest.: S MOBLEY
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 49 - ENGINEERING, OTHER

NAG10 226 FLORIDA A&M UNIVERSITY **3753**
CONTROL & CALIBRATION OF ARID
 09/18/1997 – 09/17/1999 FY98: \$73,023 Total: \$144,513
Prin. Invest.: R ROBERTS
Tech. Officer: KSC/T LIPPITT
CASE Category: 49 – ENGINEERING, OTHER

NAG10 238 FLORIDA A&M UNIVERSITY **3754**
MINORITY ACCESS TO GRAD ENGR PROGRAM
 12/17/1997 – 03/18/1999 FY98: \$1,817,514 Total: \$1,817,514
Prin. Invest.: F S HUMPHRIES
Tech. Officer: KSC/E SMITH
CASE Category: 49 – ENGINEERING, OTHER

NAG10 239 FLORIDA A&M UNIVERSITY **3755**
ENGINEERING CONCEPTS INSTITUTE (ECI)
 12/17/1997 – 12/18/1998 FY98: \$65,200 Total: \$65,200
Prin. Invest.: F J FAREMAN
Tech. Officer: KSC/E SMITH
CASE Category: 49 – ENGINEERING, OTHER

NAG10 242 FLORIDA A&M UNIVERSITY **3756**
MAPSTAP PROGRAM TEACHER ENHANCEMENT PROJECT/FAMU AND GADSDEN COUNTY SCHOOL SYSTEM
 05/13/1998 – 05/13/1999 FY98: \$199,999 Total: \$199,999
Prin. Invest.: B SAMUELS
Tech. Officer: KSC/E JOHNSON
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG10 248 FLORIDA A&M UNIVERSITY **3757**
PRODIGY 2000
 09/23/1998 – 09/23/2000 FY98: \$100,000 Total: \$100,000
Prin. Invest.: B MCCUNE
Tech. Officer: KSC/R MCKINNEY
CASE Category: 62 – PSYCHOLOGY SOCIAL ASPECTS

NAG13 41 FLORIDA A&M UNIVERSITY **3758**
LABILE AND STABLE SOC POOLS REVEALED BY C-14 AND C-13 SIGNATURES
 09/27/1996 – 09/26/1999 FY98: \$23,000 Total: \$216,398
Prin. Invest.: Y P HSIEH
Tech. Officer: SSC/A JOYCE
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NAG13 43 FLORIDA A&M UNIVERSITY **3759**
REMOTE SENSING LAND-USE CLASSIFICATION AND ENHANCEMENT OF AGRICULTURAL PRODUCTION IN SOUTH AFRICA
 07/24/1995 – 12/28/1998 FY98: \$143,229 Total: \$292,774
Prin. Invest.: S PANCHOLY
Tech. Officer: SSC/A JOYCE
CASE Category: 43 – CHEMICAL ENGR

NCC 1 252 FLORIDA A&M UNIVERSITY **3760**
CENTER FOR NONLINEAR AND NONEQUILIBRIUM AEROSCIENCES (CEN-NAS)
 04/23/1997 – 12/31/1998 FY98: \$1,160,000 Total: \$2,000,000
Prin. Invest.: J JOHNSON
Tech. Officer: LARC/W SELLERS
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 956 FLORIDA A&M UNIVERSITY **3761**
A COOPERATIVE RESEARCH PROGRAM IN AERONAUTICAL INFORMATION SCIENCE TECHNOLOGIES
 07/01/1996 – 11/30/1998 FY98: \$200,000 Total: \$653,740
Prin. Invest.: A KROTHAPALLI, L LOURENCO, S WALKER
Tech. Officer: ARC/J C ROSS, ARC/P T SODERMAN
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 1005 FLORIDA A&M UNIVERSITY **3762**
DEVELOPMENT OF A TRANSDERMAL DELIVERY DEVICE FOR MELATONIN IN VIVO
 08/25/1997 – 11/30/1998 FY98: \$31,900 Total: \$129,894
Prin. Invest.: M S SACHDEVA
Tech. Officer: ARC/C M WINGET, ARC/G S LEE
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NCC 2 1018 FLORIDA A&M UNIVERSITY **3763**
INTEGRATED DESIGN SYSTEMS TECHNOLOGY
 02/12/1998 – 12/31/1998 FY98: \$280,284 Total: \$280,284
Prin. Invest.: A KROTHAPALLI
Tech. Officer: ARC/C A SMITH
CASE Category: 41 – AERONAUTICAL ENGR

NGT 90030 FLORIDA A&M UNIVERSITY **3764**
NGT-90030/FLORIDA A&M UNIV/PROJECT IMAGE – INCREASING MINORITY ACCESS TO GRADUATE ENGINEERING
 03/14/1990 – 11/14/1996 FY98: \$0 Total: \$5,600,969
Prin. Invest.: F S HUMPHRIES
Tech. Officer: HQ/L WARREN, HQ/M MARGOLIS
CASE Category: 49 – ENGINEERING, OTHER

NGT 5 90018 FLORIDA A&M UNIVERSITY **3765**
ENGINEERING CONCEPT INSTITUTE
 02/21/1997 – 09/30/1997 FY98: \$0 Total: \$59,781
Prin. Invest.: F J FOREMAN
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 – ENGINEERING, OTHER

NGT 5 90035 FLORIDA A&M UNIVERSITY **3766**
TRAINING GRANT – PROJECT IMAGE
 02/24/1997 – 11/14/1997 FY98: \$0 Total: \$1,227,403
Prin. Invest.: F HUMPHRIES
Tech. Officer: GSFC/J DIGGS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 90047 FLORIDA A&M UNIVERSITY **3767**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH
 02/06/1997 – 08/14/1997 FY98: \$0 Total: \$17,000
Prin. Invest.: H L WILLIAMS
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 21 – MATHEMATICS

NGT 5 90062 FLORIDA A&M UNIVERSITY **3768**
SPACE LIFE SCIENCES TRAINING PROGRAM (SLSTP)
 02/12/1997 – 02/28/1999 FY98: \$446,536 Total: \$881,264
Prin. Invest.: C B GOODMAN
Tech. Officer: GSFC/L P RANDOLPH
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 1 1202 FLORIDA ATLANTIC UNIVERSITY **3769**
BROAD BAND NOISE PREDICTION FOR ADVANCED DUCTED PROP FANS
USIN LOCALLY GENERATED INFLOWFDP
 12/17/1990 – 02/28/1998 FY98: \$5,992 Total: \$427,912
Prin. Invest.: S A GLEGG
Tech. Officer: LARC/J W POSEY, LARC/F FARASSAT
CASE Category: 41 – AERONAUTICALENGNR

NAG 1 1310 FLORIDA ATLANTIC UNIVERSITY **3770**
FUNDAMENTAL PROBLEMS IN PROBABILISTICS AND CONVEX ANALYSES
OF UNCERTAIN INITIAL IMPERFECTIONS
 07/15/1991 – 06/30/1998 FY98: \$35,000 Total: \$321,145
Prin. Invest.: I ELISHAKOFF
Tech. Officer: LARC/J H STARNES
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1812 FLORIDA ATLANTIC UNIVERSITY **3771**
EVALUATION OF STRUCTURE-BORNE NOISE PREDICTION TECHNIQUES
(NLPN 95-1224)
 02/23/1996 – 11/22/1998 FY98: \$30,000 Total: \$60,000
Prin. Invest.: J M CUSCHIERI, C B BURROUGHS, G P CARROLL
Tech. Officer: LARC/K H LYLE, LARC/R J SILCOX
CASE Category: 46 – MECHANICAL ENGR

NAG 1 1993 FLORIDA ATLANTIC UNIVERSITY **3772**
BROADBAND FAN NOISE FROM TURBULENT VORTICAL FLOWS INCIDENT
ON STATOR VANES
 01/15/1998 – 01/14/1999 FY98: \$59,000 Total: \$59,000
Prin. Invest.: S L GLEGG, M DHANAK
Tech. Officer: LARC/J W POSEY, LARC/F FARASSAT
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 1198 FLORIDA ATLANTIC UNIVERSITY **3773**
A MODEL BASED FAILURE DIAGNOSIS SYSTEM BASED ON RE AL TIME
IDENTIFICATION FOR HELICOPTER ENGINES
 08/28/1990 – 11/30/1996 FY98: -\$136 Total: \$256,013
Prin. Invest.: A DUYAR
Tech. Officer: LERC/J S LITT
CASE Category: 49 – ENGINEERING, OTHER

NAG 3 1738 FLORIDA ATLANTIC UNIVERSITY **3774**
NUMERICAL MODELING OF TWINNING IN GAAS CRYSTAL DURING SPACE
GROWTH PROCESS
 04/18/1995 – 04/17/1997 FY98: -\$945 Total: \$24,872
Prin. Invest.: C TSAI
Tech. Officer: LERC/A CHAIT
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 3 1817 FLORIDA ATLANTIC UNIVERSITY **3775**
CONDITION MONITORING SYSTEM DESIGN FOR AIRCRAFT ENGINES
FAULT PARAMETER ESTIMATION APPROACH
 03/29/1996 – 03/28/1997 FY98: -\$6,188 Total: \$48,812
Prin. Invest.: A DUYAR
Tech. Officer: LERC/T H GUO
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2023 FLORIDA ATLANTIC UNIVERSITY **3776**
SPACE COMMUNICATIONS TECHNOLOGY CENTER
 03/12/1997 – 02/24/1999 FY98: \$255,000 Total: \$655,000
Prin. Invest.: W E GLENN, H HELMKEN
Tech. Officer: LERC/T P BIZON
CASE Category: 45 – ELECTRICAL ENGR

NAG 5 3903 FLORIDA ATLANTIC UNIVERSITY **3777**
ONE- AND MULTIDIMENSIONAL RADIATION HYDRODYNAMICS NOVAE
 03/03/1997 – 02/14/1999 FY98: \$30,000 Total: \$60,000
Prin. Invest.: S W BRUENN
Tech. Officer: C SFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAGW 2778 FLORIDA ATLANTIC UNIVERSITY **3778**
CENTER FOR COMMERCIAL DEVELOPMENT OF SPACE COMMUNICATIONS
 01/23/1992 – 03/30/1997 FY98: \$0 Total: \$4,430,000
Prin. Invest.: W GLENN, J SHEPPERD
Tech. Officer: Q/V CEVENINI, HQ/C PITTMAN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG10 193 FLORIDA ATLANTIC UNIVERSITY **3779**
STUDY PROPERTIES OF SPRAYED ZINC
 04/26/1996 – 12/31/1998 FY98: \$0 Total: \$138,343
Prin. Invest.: W H HARTT
Tech. Officer: SC/R LEE
CASE Category: 13 – PHYSICS

NAS 3 26956 FLORIDA ATLANTIC UNIVERSITY **3780**
ACTS PROPAGATION EXPERIMENTS
 06/21/1993 – 03/31/1999 FY98: \$45,395 Total: \$279,303
Prin. Invest.: F HELMKEN
Tech. Officer: LERC/R J GUNDERMAN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NCC 2 5264 FLORIDA ATLANTIC UNIVERSITY **3781**
AN INVESTIGATION OF HINGELESS-ROTOR TRIM & STABILITY WITH
EXPERIMENTAL CORRELATION
 04/23/1998 – 02/31/1998 FY98: \$20,143 Total: \$20,143
Prin. Invest.: G H GEONKAR
Tech. Officer: LARC/T H MAIER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 1 1957 FLORIDA INSTITUTE OF TECHNOLOGY **3782**
ADVANCED COMMUNICATIONS DATALINK FOR MODERN COCKPITS
 07/30/1997 – 08/01/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: F HAM, D M HAM
Tech. Officer: LARC/P A PADILLA
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2061 FLORIDA INSTITUTE OF TECHNOLOGY **3783**
DELAMINATION MODELING OF COMPOSITES FOR IMPROVED CRASH
ANALYSIS.
 05/06/1998 – 02/19/1998 FY98: \$30,694 Total: \$30,694
Prin. Invest.: C FLEMING
Tech. Officer: LARC/K E JACKSON, LARC/L E JONES
CASE Category: 49 – ENGINEERING, OTHER

NAG 2 1171 FLORIDA INSTITUTE OF TECHNOLOGY **3784**
AUTOMATIC SCHEDULING OF TELESCOPE OBSERVATIONS ON THE
SARA.9 METER KITT PEAK TELESCOPE USING THE....
 12/16/1997 – 04/30/1999 FY98: \$42,235 Total: \$42,235
Prin. Invest.: H A MORRIS
Tech. Officer: LARC/K J SWANSON
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 3886 FLORIDA INSTITUTE OF TECHNOLOGY **3785**
BABY MACHINE ANALYSIS OF CELLULAR GRAVITY SENSITIV
 03/04/1997 - 04/30/1998 FY98: \$0 Total: \$101,011
Prin. Invest.: C HELMSTETTER
Tech. Officer: GSFC/T SCOTT
CASE Category: 11 - ASTRONOMY

NAG 5 4897 FLORIDA INSTITUTE OF TECHNOLOGY **3786**
CRRES AND GEOSYNCHRONOUS OBSERVATIONS OF PLASMASP AMICS
 06/24/1997 - 06/30/1999 FY98: \$25,129 Total: \$68,629
Prin. Invest.: D B MOLDWIN
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4503 FLORIDA INSTITUTE OF TECHNOLOGY **3787**
BABY MACHINE ANALYSIS OF CELLULAR GRAVITY SENSITIVITY
 05/19/1995 - 04/30/1998 FY98: \$0 Total: \$194,424
Prin. Invest.: C E HELMSTETTER
Tech. Officer: HQ/T K SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 5153 FLORIDA INSTITUTE OF TECHNOLOGY **3788**
CRRES AND GEOSYNCHRONOUS OBSERVATIONS
 09/03/1996 - 09/30/1997 FY98: \$0 Total: \$44,700
Prin. Invest.: M MOLDWIN
Tech. Officer: GSFC/J D BOHLIN, GSFC/G L WITHBORE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 151 FLORIDA INSTITUTE OF TECHNOLOGY **3789**
DEVELOPMENT & TESTING OF AN OPTICAL WATER QUALITY BUOY
 01/09/1995 - 01/16/1998 FY98: \$0 Total: \$204,000
Prin. Invest.: C R BOSTATER
Tech. Officer: KSC/W M KNOTT
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NGT10 52604 FLORIDA INSTITUTE OF TECHNOLOGY **3790**
GRADUATE STUDENT RESEARCH GRANT
 04/08/1996 - 07/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: J C BAUM, A B BROWN
Tech. Officer: KSC/D LUECK
CASE Category: 12 - CHEMISTRY

NAG10 196 FLORIDA MEMORIAL COLLEGE **3791**
MINORITY AVIATION CAREER AWARENESS PROGRAM
 09/24/1996 - 09/30/1999 FY98: \$150,000 Total: \$329,995
Prin. Invest.: D T COLEMAN
Tech. Officer: KSC/J DIGGS
CASE Category: 41 - AERONAUTICAL ENGR

NAG10 247 FLORIDA MEMORIAL COLLEGE **3792**
DEVELOP A SCIENCE & TECH INITIATIVE FOR AFRICAN AMERICAN & OTHER UNDER-REPRESENTED STUDENTS
 08/01/1998 - 07/31/1999 FY98: \$302,713 Total: \$302,713
Prin. Invest.: H HUISSO
Tech. Officer: KSC/R MC KINNEY
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 1 421 FLORIDA STATE UNIVERSITY **3793**
COMPUTATION OF LARGE TURBULENCE STRUCTURES & NOISES OF SUPERSONIC JETS
 12/01/1983 - 12/31/1996 FY98: -\$3 Total: \$790,959
Prin. Invest.: C K TAM
Tech. Officer: LARC/R A GOLUB, LARC/T D NORUM
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1771 FLORIDA STATE UNIVERSITY **3794**
HIGH RESOLUTION NUMERICAL SIMULATIONS AND DIAGNOSTICS OF ATMOSPHERIC TRANSPORT DURING PEM-10/18/1995 - 02/17/1999 FY98: \$0 Total: \$530,789
Prin. Invest.: T N KRISHNAMURTI, H E FUELBERG
Tech. Officer: LARC/J M HOELL, JR.
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1776 FLORIDA STATE UNIVERSITY **3795**
JET AEROACOUSTICS: NOISE GENERATION MECHANISMS AND PREDICTION
 10/26/1995 - 10/31/1998 FY98: \$85,001 Total: \$240,001
Prin. Invest.: C W TAM
Tech. Officer: LARC/J S PREISSER, LARC/T D NORUM
CASE Category: 13 - PHYSICS

NAG 1 1795 FLORIDA STATE UNIVERSITY **3796**
A STUDY OF ATMOSPHERIC FLOW PATTERNS DURING GTE FIELD PROJECTS
 01/25/1996 - 10/24/1998 FY98: \$0 Total: \$59,662
Prin. Invest.: H E FUELBERG
Tech. Officer: LARC/G L GREGORY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1889 FLORIDA STATE UNIVERSITY **3797**
PREDICTION OF COMPRESSIBLE JET FLOW FIELDS AND AERODYNAMIC SOUND FIELD
 01/09/1997 - 12/31/1998 FY98: \$143,842 Total: \$248,842
Prin. Invest.: M Y HUSSANI
Tech. Officer: LARC/J M SEINER, LARC/M K PONTON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1952 FLORIDA STATE UNIVERSITY **3798**
MEASUREMENT OF UNSTEADY VELOCITY FIELDS IN SUPER SONIC JET FLOWS USING PIV
 07/01/1997 - 04/30/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: L LOURENCO, NONE
Tech. Officer: LARC/J M SEINER, LARC/B JANSEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1977 FLORIDA STATE UNIVERSITY **3799**
ADVANCED CAA METHODS FOR AIRFRAME NOISE PREDICTION AND SIMULATION
 12/08/1997 - 12/07/1998 FY98: \$30,000 Total: \$30,000
Prin. Invest.: C K TAM
Tech. Officer: LARC/C TAM
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1986 FLORIDA STATE UNIVERSITY **3800**
MICRO-AND MACRO-FLUID DYNAMICS AND ACOUSTICS OF RESONANT LINERS
 01/02/1998 - 12/31/1998 FY98: \$90,000 Total: \$90,000
Prin. Invest.: K W TAM
Tech. Officer: LARC/W R WATSON, LARC/T L PARROTT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2078 FLORIDA STATE UNIVERSITY **3801**
NOISE SUPPRESSION OF HEATED SUPERSONIC JETS BY WATER INJECTION
 06/16/1998 - 04/30/2001 FY98: \$49,567 Total: \$49,567
Prin. Invest.: A KROTHAPALLI, L LOURENCO
Tech. Officer: LARC/J M SEINER, LARC/M K PONTON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1098 FLORIDA STATE UNIVERSITY **3802**
NUMERICAL SIMULATIONS & DIAGNOSTIC STUDIES OF STM OSPHERIC
TRANSPORT DURING SONEX
 12/30/1996 - 12/31/1998 FY98: \$74,864 Total: \$184,934
Prin. Invest.: H E FUELBERG
Tech. Officer: ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1183 FLORIDA STATE UNIVERSITY **3803**
DEVELOPMENT OF TOOLS & SUPPORT OF PIV MEASUREMENTS IN THE
NASA-AMES 80X120 WIND TUNNEL
 02/27/1998 - 12/31/1998 FY98: \$30,000 Total: \$30,000
Prin. Invest.: L M LOURENCO
Tech. Officer: ARC/G K YAMAUCHI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1683 FLORIDA STATE UNIVERSITY **3804**
JET MIXING NOISE FROM FINE SCALE TURBULENCE
 12/01/1994 - 09/30/1998 FY98: \$0 Total: \$242,810
Prin. Invest.: C K TAM
Tech. Officer: LERC/E A KREJSA, LERC/J F GROENEWEG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1841 FLORIDA STATE UNIVERSITY **3805**
THERETICAL STUDIES OF LIQUID HELIUM NEAR THE SUPER FLUID TRAN-
SITION
 05/01/1996 - 04/30/2000 FY98: \$64,000 Total: \$164,000
Prin. Invest.: E MANOUSAKIS, NONE
Tech. Officer: LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1885 FLORIDA STATE UNIVERSITY **3806**
FLUID PHYSICS IN STOCHASTIC ACCELERATION ENVIRONMEN T
 06/17/1996 - 06/16/2000 FY98: \$5,000 Total: \$219,956
Prin. Invest.: J VINALS
Tech. Officer: LERC/A CHAIT
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1962 FLORIDA STATE UNIVERSITY **3807**
INTERNATIONAL SYMPOSIUM ON THEORETICAL & COMPUTATIONAL
FLUID DYNAMICS
 09/06/1996 - 04/30/1997 FY98: -\$200 Total: \$4,800
Prin. Invest.: M Y HUSSANINI
Tech. Officer: LERC/L A POVINELLI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2102 FLORIDA STATE UNIVERSITY **3808**
NUMERICAL SIMULATION OF SCREECH TONES FROM SUPERSONIC JETS:
PHYSICS & PREDICTIONS
 12/24/1997 - 11/30/2000 FY98: \$80,000 Total: \$80,000
Prin. Invest.: C K TAM
Tech. Officer: LERC/K Q ZAMAN
CASE Category: 46 - MECHANICAL ENGR

NAG 5 1595 FLORIDA STATE UNIVERSITY **3809**
USE OF MICROWAVE RAINFALL AND PRECIPITABLE WATER ESTIMATES IN
GLOBAL MODEL INITIALIZATION AND PRE..
 05/13/1991 - 07/31/1997 FY98: \$0 Total: \$545,947
Prin. Invest.: T N KRISHNAMURTI
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1660 FLORIDA STATE UNIVERSITY **3810**
VARIATIONAL DATA ASSIMILATION WITH SEMI-IMPLICIT SEMI-LAGRAN-
GIAN SHALLOW WATER EQUATION MODEL
 07/15/1991 - 11/31/1997 FY98: \$0 Total: \$522,906
Prin. Invest.: L N NAVON
Tech. Officer: GSFC/J R BATES
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2447 FLORIDA STATE UNIVERSITY **3811**
QUALITY ASSURANCE OF BOREAS NET RADIATION MEASUREMENT
 11/30/1993 - 09/30/1998 FY98: \$75,000 Total: \$564,202
Prin. Invest.: E J SMITH
Tech. Officer: GSFC/F G HALL, GSFC/P J SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2672 FLORIDA STATE UNIVERSITY **3812**
VERTICALLY RESOLVED PRECIPITATION RETRIEVAL USING PASSIVE MI-
CROWAVE ONLY AND COMBINED PASSIVE MICRO
 08/11/1994 - 08/14/1997 FY98: \$0 Total: \$325,000
Prin. Invest.: E J SMITH
Tech. Officer: GSFC/A NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2719 FLORIDA STATE UNIVERSITY **3813**
GROUND TRUTH FOR TRMM IN FLORIDA
 09/08/1994 - 09/14/1998 FY98: \$0 Total: \$260,000
Prin. Invest.: P S SMITH
Tech. Officer: GSFC/O THIELE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 2970 FLORIDA STATE UNIVERSITY **3814**
GEOMAGNETIC FIELD ANALYSIS IN CONJUNCTION WITH THE ORSTED
MISSION
 06/12/1995 - 06/30/1998 FY98: \$0 Total: \$150,000
Prin. Invest.: J C UIN
Tech. Officer: GSFC/P TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3185 FLORIDA STATE UNIVERSITY **3815**
ANALYSIS AND COMPARISON OF ATMOSPHERIC OZONE DATA
 03/21/1996 - 12/31/1998 FY98: \$10,000 Total: \$15,852
Prin. Invest.: D C CAIN
Tech. Officer: GSFC/R D MCPETERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4729 FLORIDA STATE UNIVERSITY **3816**
INITIALIZATION AND HIGH RESOLUTION GLOBAL PREDICTI DATA FROM
TRMM PROGRAM AREA: MODELING, ANALYSIS,
 07/03/1997 - 06/30/1999 FY98: \$125,000 Total: \$241,697
Prin. Invest.: T N KRISHNAMURTI
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4752 FLORIDA STATE UNIVERSITY **3817**
VALIDATING TRMM-DERIVED LATENT HEATING DISTRIBUTION COMBINED-
INSTRU. RETRIEVAL ALGORITHM INCLUD. IMPA
 06/18/1997 - 05/31/1999 FY98: \$175,000 Total: \$285,000
Prin. Invest.: E A SMITH
Tech. Officer: GSFC/A J NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4813 FLORIDA STATE UNIVERSITY **3818**
STUDIES OF VARIABLE CLIMATE PROCESS
 06/19/1997 – 09/30/1999 FY98: \$0 Total: \$163,925
Prin. Invest.: W DEWAR
Tech. Officer: GSFC/E J LINDSTROM
CASE Category: 33 – OCEANOGRAPHY

NAG 5 4873 FLORIDA STATE UNIVERSITY **3819**
USING NASA FULL PHYSICS ADJOINT OF THE GEOS-1 GCM ANALYSIS, SENSITIVITY ANALYSIS AND OPTIMAL SENSOR
 07/03/1997 – 05/31/1999 FY98: \$108,000 Total: \$215,576
Prin. Invest.: I NAVON
Tech. Officer: GSFC/M HALL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4921 FLORIDA STATE UNIVERSITY **3820**
SIBERIAN PERMAFROST: APPLICATIONS TO MARS
 07/07/1997 – 05/31/1999 FY98: \$0 Total: \$117,372
Prin. Invest.: D FRIEDMANN
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 6258 FLORIDA STATE UNIVERSITY **3821**
AN INTERCOMPARISON OF THE INFLUENCE OF VEGETATION SURFACE-ATMOSPHERE WATER EXCHANGE AND BOUNDARY LAY
 08/27/1997 – 01/31/1999 FY98: \$112,000 Total: \$172,000
Prin. Invest.: E SMITH *Prin. Invest.:* NONE
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6325 FLORIDA STATE UNIVERSITY **3822**
ADVANCED DATA ASSIMILATION INTO OCEAN CIRCULATION MODELS DRIVEN BY NSCAT DATA & ENSO IMPACTS ON NORT
 10/07/1997 – 08/31/1999 FY98: \$230,000 Total: \$230,000
Prin. Invest.: J O'BRIEN
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6665 FLORIDA STATE UNIVERSITY **3823**
COMBINING SSM/I, T/2 AND GOES MEASUREMENTS FOR A SATELLITE-BASED ATMOSPHERIC WATER BUDGET OF
 11/25/1997 – 11/30/1999 FY98: \$325,000 Total: \$325,000
Prin. Invest.: E A SMITH
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7254 FLORIDA STATE UNIVERSITY **3824**
ANOMALOUS HEAT BUDGETS IN THE INTERIOR PACIFIC OCEAN ON SEASONAL-TO-INTERANNUAL TIMESCALES AND
 05/14/1998 – 04/30/2001 FY98: \$51,500 Total: \$51,500
Prin. Invest.: J J O'BRIEN
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 33 – OCEANOGRAPHY

NAG 5 7302 FLORIDA STATE UNIVERSITY **3825**
RETRIEVAL OF SURFACE RADIATION FLUXES OVER BOREAS SNOW REGIME FROM GOES 8 IMAGERY FOR APPLICATIONS T
 05/04/1998 – 04/30/2000 FY98: \$79,402 Total: \$79,402
Prin. Invest.: E A SMITH *Prin. Invest.:* NONE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7577 FLORIDA STATE UNIVERSITY **3826**
"REDUCTION AND ANALYSIS OF LEO SATELLITE MAGNETIC FIELD DATA"(SENH98-0077)
 08/04/1998 – 01/31/1999 FY98: \$33,000 Total: \$33,000
Prin. Invest.: J C CAIN
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 7618 FLORIDA STATE UNIVERSITY **3827**
ANNUAL MARINE PRIMARY PRODUCTION ALGORITHM DEVELOPMENT AND APPLICATION TO MODIS DATA
 09/08/1998 – 07/31/2000 FY98: \$104,017 Total: \$104,017
Prin. Invest.: R L IVERSON
Tech. Officer: GSFC/W ESAIAS
CASE Category: 33 – OCEANOGRAPHY

NAG 5 7630 FLORIDA STATE UNIVERSITY **3828**
ZONAL PROPAGATION OF NONLINEAR OCEANIC ANOMALIES
 08/10/1998 – 09/30/1999 FY98: \$140,000 Total: \$140,000
Prin. Invest.: W DEWAR
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7648 FLORIDA STATE UNIVERSITY **3829**
"THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO PREDICT MOSQUITO-BORNE ENCEPHALITIS TRANSMIS
 09/01/1998 – 08/31/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: J O'BRIEN *Prin. Invest.:* NONE
Tech. Officer: GSFC/B W MESSON
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1163 FLORIDA STATE UNIVERSITY **3830**
ANALYSIS OF ELECTROPHORETIC TRANSPORT
 08/30/1995 – 08/29/1999 FY98: \$221,420 Total: \$529,635
Prin. Invest.: B R LOCKE
Tech. Officer: MSFC/P H RHODES, MSFC/T Y MILLER
CASE Category: 43 – CHEMICAL ENGR

NAG 8 1199 FLORIDA STATE UNIVERSITY **3831**
IMPACT STUDIES OF NEWER DATA SETS ON VERY HIGH RESOLUTION GLOBAL FORECAST
 11/13/1995 – 11/12/1998 FY98: \$70,000 Total: \$215,943
Prin. Invest.: T N KRISHNAMURTI
Tech. Officer: MSFC/D FITZJARRALD, MSFC/J ROTHERMEL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 8 1537 FLORIDA STATE UNIVERSITY **3832**
IMPACT STUDIES OF NEWER DATA SETS (COMEX-3) ON VERY HIGH RESOLUTION GLOBAL FORECASTS
 06/05/1998 – 06/04/2000 FY98: \$69,645 Total: \$69,645
Prin. Invest.: T N KRISHNAMURTI
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAGW 985 FLORIDA STATE UNIVERSITY **3833**
DATA ASSIMUL. IN OCEAN CIRCULATION
 11/01/1986 – 09/30/1998 FY98: \$0 Total: \$1,518,000
Prin. Invest.: J J O'BRIEN
Tech. Officer: HQ/G S LAGERLOEF, HQ/W S WILSON
CASE Category: 33 – OCEANOGRAPHY

NAGW 3495 FLORIDA STATE UNIVERSITY **3834**
NAGW-3495/FLORIDA STATE UNIV/MARINE PHYTOPLANKTON ANNUAL CARBON PRODUCTION, NEW NITROGEN PRODUCTION
 04/22/1993 - 05/31/1998 FY98: \$0 Total: \$180,000
Prin. Invest.: R IVERSON
Tech. Officer: HQ/R E MURPHY, HQ/D M BUTLER
CASE Category: 33 - OCEANOGRAPHY

NAGW 3855 FLORIDA STATE UNIVERSITY **3835**
FLORIDA STATE UNIV - CONTROLS ON METHANE EMISSIONS FROM VEGETATED WETLANDS: SUBSTRATE, OXIDATION, TRAN
 01/13/1994 - 09/30/1997 FY98: \$0 Total: \$150,000
Prin. Invest.: J CHANTON
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3970 FLORIDA STATE UNIVERSITY **3836**
"WETNET INTERCOMPARISON-VALIDATION STUDIES OF SSM PRECIPITATION OF RETRIEVAL ALGORITHMS"
 04/25/1994 - 09/30/1997 FY98: -\$81 Total: \$414,919
Prin. Invest.: E A SMITH
Tech. Officer: HQ/J C DODGE, HQ/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4044 FLORIDA STATE UNIVERSITY **3837**
SIBERIAN PERMAFROST: APPLICATIONS TO MARS
 08/22/1994 - 05/31/1998 FY98: \$0 Total: \$344,412
Prin. Invest.: E I FRIEDMANN
Tech. Officer: HQ/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 4883 FLORIDA STATE UNIVERSITY **3838**
STUDIES OF VARIABLE CLIMATE PROCESSES
 12/11/1995 - 09/30/1997 FY98: \$0 Total: \$240,000
Prin. Invest.: W K DEWAR
Tech. Officer: HQ/N MAYNARD
CASE Category: 33 - OCEANOGRAPHY

NAS 8 40632 FLORIDA STATE UNIVERSITY **3839**
FURNACE & COIL FURNACE
 08/14/1995 - 06/16/1997 FY98: \$0 Total: \$89,373
Prin. Invest.: M BIRD
Tech. Officer: MSFC/L JETER
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 1 308 FLORIDA STATE UNIVERSITY **3840**
NUMERICAL SIMULATIONS AND DIAGNOSTIC STUDIES OF METEOROLOGICAL CONDITIONS DURING PEM-TROPICS B
 07/21/1998 - 07/31/1999 FY98: \$86,000 Total: \$86,000
Prin. Invest.: H E FUELBERG
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 292 FLORIDA STATE UNIVERSITY **3841**
HIGH RESOLUTION CARBON EXCHANGE OVER LARGE-SCALE AMAZONIA BASED ON MODELING AND GOES SATELLITE
 06/25/1998 - 02/28/1999 FY98: \$68,100 Total: \$68,100
Prin. Invest.: E A SMITH
Prin. Invest.: NONE
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 8 158 FLORIDA STATE UNIVERSITY **3842**
SOUTHEAST REGIONAL EARTH SCIENCE APPLICATIONS CENTER
 09/25/1998 - 09/30/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: J J O'BRIEN
Tech. Officer: MS/C/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 30214 FLORIDA STATE UNIVERSITY **3843**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/25/1993 - 08/31/1997 FY98: -\$33 Total: \$65,967
Prin. Invest.: H E FUELBERG
Tech. Officer: HQ/G ASRAR, HQ/D M BUTLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30116 FLORIDA STATE UNIVERSITY **3844**
SATELLITE DERIVED LAND SURFACE TEMPERATURE & ADJUNCT MODELING TECHNIQUES TO IMPROVE A SPATIAL BIOSP
 10/01/1997 - 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: E SMITH
Tech. Officer: GS/C/G ASRAR
CASE Category: 99 - MULTIDISCIPL, OTHER

NGT 5 30158 FLORIDA STATE UNIVERSITY **3845**
DYNAMICS AND VARIABILITY OF THE NORTH HAWAIIAN RIDGE CURRENT FROM SATELLITE ALTIMETRY AND AN
 08/28/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J J O'BRIEN, LEONARDI
Tech. Officer: GS/C/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30164 FLORIDA STATE UNIVERSITY **3846**
NONLINEAR EXCHANGE PROCESSES BETWEEN THE PACIFIC AND THE INDIAN OCEAN
 08/31/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: D N JF, H SIMMONS
Tech. Officer: GS/C/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 1917 THE UNIVERSITY OF CENTRAL FLORIDA **3847**
A LOW LOSS MICROSTRIP ANTENNA FOR RADIOMETRIC APPLICATIONS
 04/24/1997 - 01/23/1999 FY98: \$69,839 Total: \$101,757
Prin. Invest.: C G CHRISTODOULOU, P F WAHID
Tech. Officer: LA 3C/M C BAILEY
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 3547 THE UNIVERSITY OF CENTRAL FLORIDA **3848**
COMPARISON OF SLICER WAVEFORMS WITH SIMULATED CANOPY PROFILES
 11/29/1996 - 08/31/1997 FY98: \$0 Total: \$12,000
Prin. Invest.: J W EISHAMPEL
Tech. Officer: GSFC/D HARDING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6528 THE UNIVERSITY OF CENTRAL FLORIDA **3849**
DETECTING AND MODELING SPATIAL CANOPY PROPERTIES OF FORESTED LANDSCAPES
 12/06/1997 - 06/30/1999 FY98: \$82,343 Total: \$82,343
Prin. Invest.: J W EISHAMPEL
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7068 THE UNIVERSITY OF CENTRAL FLORIDA **3850**
TROPICAL RAINFALL MEASURING MISSION (TRMM) "GROUND TRUTH" IN
CENTRAL AND SOUTH FLORIDA
 03/02/1998 - 02/28/1999 FY98: \$182,948 Total: \$182,948
Prin. Invest.: W JONES
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1426 THE UNIVERSITY OF CENTRAL FLORIDA **3851**
R/S OBJECTIVE OPERATIONAL UTILIZATION OF SATELLITE MICROWAVE
SCATTEROMETER OBSERVATION OF TROPICAL
 01/07/1998 - 12/31/1998 FY98: \$74,964 Total: \$74,964
Prin. Invest.: W L JONES
Tech. Officer: MSFC/J M SIMONDS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 5202 THE UNIVERSITY OF CENTRAL FLORIDA **3852**
DETECTING AND MODELING SPATIAL CANOPY PROPERTIES OF FORE-
STED LANDSCAPES
 10/03/1996 - 06/30/1998 FY98: \$0 Total: \$161,370
Prin. Invest.: J F WEISHAMPEL
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG10 141 THE UNIVERSITY OF CENTRAL FLORIDA **3853**
VARIABLE FORM DATA COLLECTION & ANALYSIS
 06/21/1994 - 06/19/1999 FY98: \$0 Total: \$198,528
Prin. Invest.: W W SWART
Tech. Officer: KSC/T BARTH
CASE Category: 22 - COMPUTER SCIENCE

NAG10 147 THE UNIVERSITY OF CENTRAL FLORIDA **3854**
DEVELOPMENT OF ADVANCED LIFE SUPPORT AUTOMATED REMOTE
MANIPULATED (ALSARM)
 11/10/1994 - 11/14/1998 FY98: \$69,741 Total: \$216,660
Prin. Invest.: R W JOHNSON
Tech. Officer: KSC/J SAGER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG10 162 THE UNIVERSITY OF CENTRAL FLORIDA **3855**
ENHANCEMENT OF IN-SITU ZERO VALENT
 06/14/1995 - 09/30/1998 FY98: \$3,000 Total: \$170,110
Prin. Invest.: C A CLAUSEN, D R REINHART
Tech. Officer: KSC/J RYAN
CASE Category: 43 - CHEMICAL ENGR

NAG10 163 THE UNIVERSITY OF CENTRAL FLORIDA **3856**
CONCRETE REBAR CORROSION PROTECTION
 06/05/1995 - 06/08/1998 FY98: \$0 Total: \$100,010
Prin. Invest.: V H DESAI
Tech. Officer: KSC/R LEE
CASE Category: 41 - AERONAUTICAL ENGR

NAG10 194 THE UNIVERSITY OF CENTRAL FLORIDA **3857**
STUDY FOR BISTATIC RADAR SYSTEM AS WIND PROFILER AT KSC
 06/14/1996 - 12/31/1997 FY98: -\$2,387 Total: \$22,460
Prin. Invest.: C G CHRISTODOULOU
Tech. Officer: KSC/C LENNON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG10 197 THE UNIVERSITY OF CENTRAL FLORIDA **3858**
RESEARCH SCHOLARS PROGRAM CONCRETE REBAR CORROSION
 09/10/1996 - 09/09/1997 FY98: -\$3,138 Total: \$4,058
Prin. Invest.: J SMITH
Tech. Officer: KSC/R LEE
CASE Category: 13 - PHYSICS

NAG10 198 THE UNIVERSITY OF CENTRAL FLORIDA **3859**
PERMEABLE REACTIVE WALL FIELD SCALE APPLICATION PHASE II AND
IV
 09/30/1996 - 01/31/1999 FY98: \$0 Total: \$549,016
Prin. Invest.: D REINHART
Tech. Officer: KSC/M COLLINS
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG10 199 THE UNIVERSITY OF CENTRAL FLORIDA **3860**
PROJECT MANAGEMENT TO KSC'S TRANSITION
 09/23/1996 - 12/15/1997 FY98: \$0 Total: \$43,124
Prin. Invest.: T KOTHOOR
Tech. Officer: KSC/G BUCKINHAM
CASE Category: 49 - ENGINEERING, OTHER

NAG10 207 THE UNIVERSITY OF CENTRAL FLORIDA **3861**
NASA-ASEE SUMMER FACULTY FELLOWSHIP PROGRAM
 03/21/1997 - 12/31/1998 FY98: \$0 Total: \$366,000
Prin. Invest.: E R HOSLER
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 49 - ENGINEERING, OTHER

NAG10 215 THE UNIVERSITY OF CENTRAL FLORIDA **3862**
DEVELOPMENT OF ELECTRON KINETIC TECHNIQUE
 04/17/1997 - 04/16/1999 FY98: \$0 Total: \$225,000
Prin. Invest.: C GEIGER
Tech. Officer: KSC/J QUINN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG10 227 THE UNIVERSITY OF CENTRAL FLORIDA **3863**
APPLIED TRAINING PROJECT MGMT FRAMEWORK FOR ORGANIZATIONAL
TRANSITIONS
 08/04/1997 - 05/31/1999 FY98: \$70,000 Total: \$126,784
Prin. Invest.: T KOTNOUR
Tech. Officer: KSC/S BARTON
CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

NAG10 228 THE UNIVERSITY OF CENTRAL FLORIDA **3864**
METHODOLOGIES USING WATER TESTS ON LARGE SCALE SPACECRAFT
HARDWARE
 06/13/1997 - 12/31/1998 FY98: \$0 Total: \$45,000
Prin. Invest.: C CLAUSEN, III
Tech. Officer: KSC/O MELENDEZ
CASE Category: 49 - ENGINEERING, OTHER

NAG10 230 THE UNIVERSITY OF CENTRAL FLORIDA **3865**
AEROSPACE RESEARCH & EDUCATIONAL NEEDS & ACTIVITIES IN THE
STATE OF FL
 09/17/1997 - 05/30/1999 FY98: \$15,000 Total: \$67,514
Prin. Invest.: J G KOTNOUR
Tech. Officer: KSC/O MELENDEZ
CASE Category: 41 - AERONAUTICAL ENGR

NAG10 240 THE UNIVERSITY OF CENTRAL FLORIDA **3866**
NASA PM EMISSIONS STUDY
 02/01/1998 - 02/01/2000 FY98: \$105,630 Total: \$105,630
Prin. Invest.: C COOPER, P.E.
Tech. Officer: KSC/D R DELA PASCUA
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG10 244 THE UNIVERSITY OF CENTRAL FLORIDA **3867**
NASA - ASEE SUMMER FACULTY FELLOWSHIP PROGRAM
 05/26/1998 - 12/31/1998 FY98: \$339,500 Total: \$339,500
Prin. Invest.: R HOSLER
Tech. Officer: KSC/G BUCHINGHAM
CASE Category: 49 - ENGINEERING, OTHER

NAG13 98011 THE UNIVERSITY OF CENTRAL FLORIDA **3868**
NON-INTRUSIVE MEASUREMENTS OF PRESSURE AND OTHER FLOW VARIABLES
 07/17/1998 - 07/16/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J S KAPAT
Tech. Officer: KSC/B ST. CYR
CASE Category: 41 - AERONAUTICAL ENGR

NAS 5 96135 THE UNIVERSITY OF CENTRAL FLORIDA **3869**
TROPICAL RAINFALL MEASURING MISSION "GROUND TRUTH" VALIDATION
 10/01/1996 - 01/31/1998 FY98: \$0 Total: \$90,000
Prin. Invest.: L JONES
Tech. Officer: GSFC/O THIELE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCA10 35 THE UNIVERSITY OF CENTRAL FLORIDA **3870**
JOINT SPONSORED RESEARCH AGREEMENT THE VISION SPACEPORT PROJECT
 09/15/1998 - 01/31/1999 FY98: \$84,973 Total: \$84,973
Prin. Invest.: R HOFER, NONE
Tech. Officer: KSC/C M CLESKEY, KSC/C D SHELTON
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 2 1033 THE UNIVERSITY OF CENTRAL FLORIDA **3871**
CRM ASSESSMENT: DETERMINING THE GENERALIZABILITY OF ROTOR CALIBRATION TRAINING
 04/22/1998 - 12/31/1998 FY98: \$101,327 Total: \$101,327
Prin. Invest.: D BAKER
Tech. Officer: ARC/R K DISMULLES
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC10 20 THE UNIVERSITY OF CENTRAL FLORIDA **3872**
PILOT SCALE EVALUATION OF NEW TECH CONTROL NOX EMISSIONS AT KSC
 05/01/1996 - 10/30/1998 FY98: \$0 Total: \$297,225
Prin. Invest.: C D COOPER, C A CLAUSEN
Tech. Officer: KSC/J QUINN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 51402 THE UNIVERSITY OF CENTRAL FLORIDA **3873**
GSRP
 07/31/1995 - 08/20/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: D MOSHELL
Tech. Officer: HQ/D HOLLAND
CASE Category: 22 - COMPUTER SCIENCE

NGT 90059 THE UNIVERSITY OF CENTRAL FLORIDA **3874**
SUMMER PROGRAM FOR ACADEMIC CAREERS IN ENGINEERING (SPACE)
 03/31/1992 - 09/30/1998 FY98: \$0 Total: \$528,671
Prin. Invest.: S FICE, J A SMITH
Tech. Officer: H/ B WHITE
CASE Category: 49 - ENGINEERING, OTHER

NGT 90159 THE UNIVERSITY OF CENTRAL FLORIDA **3875**
NASA KSC/UCI SPACE SCHOLARS PROGRAM
 05/20/1993 - 09/30/1998 FY98: \$0 Total: \$345,532
Prin. Invest.: J A SMITH
Tech. Officer: HC / J M MACKALL
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 50128 THE UNIVERSITY OF CENTRAL FLORIDA **3876**
CONSTRAINED PHYSICAL MODELING IN VIRTUAL ENVIRONMENT
 09/09/1997 - 08/14/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: C P ARSONS
Tech. Officer: HC / A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90028 THE UNIVERSITY OF CENTRAL FLORIDA **3877**
UNDERGRADUATE STUDENT AWARDS AND RESEARCH (USAR)
 01/24/1997 - 08/14/1997 FY98: \$0 Total: \$12,000
Prin. Invest.: J SMITH
Tech. Officer: GS / C / R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NGT10 52605 THE UNIVERSITY OF CENTRAL FLORIDA **3878**
1996 SUMMER FACULTY FELLOWSHIP
 04/17/1996 - 12/31/1997 FY98: \$0 Total: \$406,000
Prin. Invest.: R W JOHNSON, E R HOSLER
Tech. Officer: KSC / G BUCKINGHAM
CASE Category: 39 - MULTI INTERDISCIPL, OTHER

NGT10 52606 THE UNIVERSITY OF CENTRAL FLORIDA **3879**
GRADUATE STUDENTS RESEARCHERS PROGRAM
 04/18/1996 - 06/30/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: M F NIEMER
Tech. Officer: KSC / R WERLINK
CASE Category: 2 - CHEMISTRY

NGT10 52615 THE UNIVERSITY OF CENTRAL FLORIDA **3880**
EFFECTIVE ORGANIZATIONAL PERFORMANCE IMPROVEMENT TOOLS USED IN AVIATION & AEROSPACE
 07/14/1998 - 07/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: T KOHNOUR
Tech. Officer: KSC / L GOSPER
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 1474 UNIVERSITY OF FLORIDA **3881**
A STUDY OF THE INTERACTION OF CONVECTION WITH SOLIDIFICATION
 01/12/1993 - 01/10/1999 FY98: \$69,644 Total: \$506,837
Prin. Invest.: R NARAYANAN, R NARAYANAN
Tech. Officer: LAR / W J DEBWAM
CASE Category: 13 - PHYSICAL SCIENCE, OTHER

NAG 1 1669 UNIVERSITY OF FLORIDA **3882**
VARIABLE COMPLEXITY OPTIMIZATION OF COMPOSITE STRUCTURES
 01/17/1995 – 01/16/1998 FY98: \$24,582 Total: \$420,182
Prin. Invest.: R T HAFTKA
Tech. Officer: LARC/J H STARNES, LARC/C J CAMARDA
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1792 UNIVERSITY OF FLORIDA **3883**
DEVELOPMENT OF PRESSURE SENSITIVE PARTS
 01/22/1996 – 01/21/1997 FY98: -\$1 Total: \$30,186
Prin. Invest.: D F CARROLL
Tech. Officer: LARC/W L SELLERS, III
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1808 UNIVERSITY OF FLORIDA **3884**
VARIABLE COMPLEXITY STRUCTURAL OPTIMIZATION OF LAUNCH VEHICLES
 02/07/1996 – 02/06/1999 FY98: \$32,999 Total: \$104,862
Prin. Invest.: R T HAFTKA
Tech. Officer: LARC/C J CAMARDA, LARC/T F JOHNSON
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG 1 1809 UNIVERSITY OF FLORIDA **3885**
DEVELOPMENT OF TEMPERATURE SENSITIVE PAINTS FOR WIND TUNNEL
 03/04/1996 – 11/30/1998 FY98: \$75,003 Total: \$225,213
Prin. Invest.: K S SCHANZE
Tech. Officer: LARC/B T UPCHURCH, LARC/M MITCHELL
CASE Category: 12 – CHEMISTRY

NAG 1 1887 UNIVERSITY OF FLORIDA **3886**
DAMAGE TOLERANCE OF SANDWICH PLATES WITH DEBONDED FACE SHEETS
 01/27/1997 – 10/31/1998 FY98: \$47,970 Total: \$95,969
Prin. Invest.: B V SANKAR
Tech. Officer: LARC/J R CRUZ
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2000 UNIVERSITY OF FLORIDA **3887**
VARIABLE COMPLEXITY OPTIMIZATION OF COMPOSITE STRUCTURES
 01/28/1998 – 01/27/1999 FY98: \$105,000 Total: \$105,000
Prin. Invest.: R T HAFTKA
Tech. Officer: LARC/J H STARNES, LARC/C A ROSE
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2060 UNIVERSITY OF FLORIDA **3888**
WAVELET AND MULTIREOLUTION ANALYSIS FOR FINITE ELEMENT NETWORKING PARADIGMS
 06/04/1998 – 04/30/2001 FY98: \$20,000 Total: \$20,000
Prin. Invest.: A L KURDILA
Tech. Officer: LARC/J M HOUSNER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2087 UNIVERSITY OF FLORIDA **3889**
VARIABLE FIXED FREQUENCY MICROWAVE PROCESSING OF MATERIALS
 07/14/1998 – 11/20/1998 FY98: \$20,000 Total: \$20,000
Prin. Invest.: D E CLARK
Tech. Officer: LARC/C R REGAN
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 1 2092 UNIVERSITY OF FLORIDA **3890**
DEV OF AN INNOVATIVE ALGORITHM FOR AERODYNAMICS- STRUCTURE INTERACTION USING LATTICE BOLTZMANN METHOD
 07/31/1998 – 07/14/1999 FY98: \$25,000 Total: \$25,000
Prin. Invest.: R MEI, W SHYY, L LUO
Tech. Officer: LARC/D H RUDY, LARC/R T BIEDRON
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 667 UNIVERSITY OF FLORIDA **3891**
"CONTINUED TESTING OF THE GALILEO LIGHTNING AND RADIO EMISSION DETECTOR"
 10/09/1990 – 03/31/1999 FY98: \$0 Total: \$285,715
Prin. Invest.: M A UMAN
Tech. Officer: ARC/L E LASHER, ARC/R E YOUNG
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 2 1179 UNIVERSITY OF FLORIDA **3892**
DESIGN SPACE EXPLORATION FOR MDO ON A TERAFLOP COMPUTER
 02/26/1998 – 01/31/1999 FY98: \$33,793 Total: \$33,793
Prin. Invest.: R T HAFTKA
Tech. Officer: ARC/G H KLOPETER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 1635 UNIVERSITY OF FLORIDA **3893**
MARANGONI EFFECTS ON THE BUBBLE DYNAMICS IN A PRESSURE DRIVEN FLOW
 06/29/1994 – 06/28/1997 FY98: \$420 Total: \$99,749
Prin. Invest.: C W PARK
Tech. Officer: LERC/B S SINGH
CASE Category: 43 – CHEMICAL ENGR

NAG 5 2614 UNIVERSITY OF FLORIDA **3894**
RAPID THERMAL PROCESSING OF SEMICONDUCTORS IN SPACE
 06/23/1994 – 06/14/1997 FY98: -\$525 Total: \$284,475
Prin. Invest.: T J ANDERSON, K JONES
Tech. Officer: GSFC/L R PURVES
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 5 2835 UNIVERSITY OF FLORIDA **3895**
PROBING LARGE SCALE STRUCTURE: THE THREE-POINT FUNCTION
 12/12/1994 – 12/14/1997 FY98: \$0 Total: \$150,000
Prin. Invest.: J N FRY
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3343 UNIVERSITY OF FLORIDA **3896**
CALIBRATION AND ASTROPHYSICS WITH ISO
 08/09/1996 – 08/14/1999 FY98: \$210,500 Total: \$475,618
Prin. Invest.: C M TELESCO
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3772 UNIVERSITY OF FLORIDA **3897**
HUMAN DIMENSIONS OF DEFORESTATION & REGROWTH IN THE TROPICALS: DATA FROM SATELLITES, DEMOGRAPHIC CENSUS
 03/11/1997 – 02/28/2000 FY98: \$0 Total: \$536,368
Prin. Invest.: D WOOD
Tech. Officer: GSFC/N MAYNARD
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

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| NAG 5 3936 UNIVERSITY OF FLORIDA 3898 RELATIVISTIC AND GRAVITATIONAL PHYSICS 04/04/1997 – 12/31/1998 FY98: \$55,500 Total: \$109,000 Prin. Invest.: P R IPSE Tech. Officer: GSFC/H HASAN CASE Category: 11 – ASTRONOMY | NAG 5 6378 UNIVERSITY OF FLORIDA 3906 OPTICAL PROPERTIES OF IRREGULAR DUST PARTICLES: EXPERIMENT AND THEORY 10/08/1997 – 04/30/1999 FY98: \$101,504 Total: \$101,504 Prin. Invest.: D GUSTAFSON, NONE Tech. Officer: GSFC/S HOWARD CASE Category: 31 – ATMOSPHERIC SCIENCE |
| NAG 5 4036 UNIVERSITY OF FLORIDA 3899 COMETS: A COORDINATED GROUND AND SPACE BASED INFRA TAXONOMIC CLASSES 04/09/1997 – 11/30/1998 FY98: \$44,179 Total: \$88,358 Prin. Invest.: D CAMPINS Tech. Officer: GSFC/J BERGSTRALH CASE Category: 11 – ASTRONOMY | NAG 5 6632 UNIVERSITY OF FLORIDA 3907 MAXIMUM LIKELIHOOD ESTIMATION OF GROUND ELEVATION USING LASER ALTIMETRY 12/12/1997 – 11/30/1998 FY98: \$48,696 Total: \$48,696 Prin. Invest.: J ANDERSON Tech. Officer: GSFC/R KNOX CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NAG 5 4204 UNIVERSITY OF FLORIDA 3900 A COORDINATED GROUND AND SPACE BASED INFRARED STUD (C/1995 01) 03/26/1997 – 03/14/1999 FY98: \$0 Total: \$41,680 Prin. Invest.: D CAMPINS Tech. Officer: GSFC/W HUEBNER CASE Category: 11 – ASTRONOMY | NAG 5 6652 UNIVERSITY OF FLORIDA 3908 UNIV. OF FLORIDA LAB. FOR ADVANCED APPLIC. OF REMOTE SENSING AND GIS INTEGRATION AND ANALYSIS TO R 12/15/1997 – 11/30/1998 FY98: \$94,952 Total: \$94,952 Prin. Invest.: M BINFORD Tech. Officer: GSFC/M WEI CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NAG 5 4287 UNIVERSITY OF FLORIDA 3901 CARBON SPECIES AS POSSIBLE CARRIERS OF THE UIRS 04/29/1997 – 04/14/1999 FY98: \$41,167 Total: \$117,167 Prin. Invest.: D T VALA Tech. Officer: GSFC/H THRONSON CASE Category: 11 – ASTRONOMY | NAG 5 6751 UNIVERSITY OF FLORIDA 3909 TOWARDS A COMPLETE INVENTORY OF STAR AND PLANET FORMATION ACTIVITY IN NEARBY MOLECULAR CLOUDS 01/12/1998 – 01/14/1999 FY98: \$69,900 Total: \$69,900 Prin. Invest.: E I ADA Tech. Officer: GSFC/D WEST CASE Category: 11 – ASTRONOMY |
| NAG 5 4531 UNIVERSITY OF FLORIDA 3902 DYNAMICS OF SOLAR SYSTEM DUST 05/08/1997 – 02/28/1999 FY98: \$85,294 Total: \$168,094 Prin. Invest.: D F DERMOTT Tech. Officer: HQ/P ROGERS CASE Category: 32 – GEOLOGICAL SCIENCE | NAG 5 7559 UNIVERSITY OF FLORIDA 3910 NITROGEN AND PHOSPHORUS DYNAMICS IN FORESTS AND CONVERTED FOREST SITES IN THE AMAZON BASIN: A REVIEW 06/26/1998 – 06/30/1999 FY98: \$16,108 Total: \$16,108 Prin. Invest.: H L GHOLZ Tech. Officer: GSFC/D W DEERING CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NAG 5 4547 UNIVERSITY OF FLORIDA 3903 PLANETARY AEROSOL MONITOR/INTEGRATED DUST ANALYZER 05/06/1997 – 05/31/1999 FY98: \$61,228 Total: \$196,671 Prin. Invest.: D GUSTAFSON Tech. Officer: GSFC/B CAMPBELL CASE Category: 99 – MULTI INTERDISCIPL, OTHER | NAG 5 7664 UNIVERSITY OF FLORIDA 3911 "THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO PREDICT MOSQUITO-BORNE ENCEPHALITIS TRANSMISSION" 09/09/1998 – 09/30/1999 FY98: \$30,000 Total: \$30,000 Prin. Invest.: J F DAY Tech. Officer: GSFC/B W MESSON CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NAG 5 4587 UNIVERSITY OF FLORIDA 3904 A NOVEL METHOD FOR AIR REVITALIZATION: CO2 REMOVAL PULSATING DEVICE 05/20/1997 – 02/28/1999 FY98: \$0 Total: \$65,994 Prin. Invest.: R NARAYANAN Tech. Officer: GSFC/M AVERNER CASE Category: 59 – LIFE SCIENCE, OTHER | NAG 5 7729 UNIVERSITY OF FLORIDA 3912 GLOBAL PLANARIZATION OF DIAMOND — GOAL IS TO IMPROVE FLATNESS OF CVD DIAMOND TO 0.1 MICROMETER 09/29/1998 – 09/30/1999 FY98: \$10,000 Total: \$10,000 Prin. Invest.: R S NGH Tech. Officer: GSFC/J C BRASUNAS CASE Category: 47 – METAL & MATERIALS ENGR |
| NAG 5 4996 UNIVERSITY OF FLORIDA 3905 DURATION OF COMETARY ACTIVITY ON THE ASTEROID PHAE 07/24/1997 – 04/30/1998 FY98: \$0 Total: \$40,000 Prin. Invest.: D GUSTAFSON Tech. Officer: GSFC/P ROGERS CASE Category: 32 – GEOLOGICAL SCIENCE | NAG 8 1243 UNIVERSITY OF FLORIDA 3913 FOR RESEARCH ENTITLED AN ELECTROMECHANICAL METHOD TO VISUALIZE FLOW AND MEASURE DIFFUSIVITY 05/28/1996 – 05/17/2000 FY98: \$150,000 Total: \$375,000 Prin. Invest.: T J ANDERSON, R NARAYANAN Tech. Officer: MSFC/C R TALLEY, MSFC/DOWNEY, JR. CASE Category: 47 – METAL & MATERIALS ENGR |

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| NAG 8 1244 UNIVERSITY OF FLORIDA 3914 THE FEATURES OF SELF-ASSEMBLING ORGANIC BILAYERS 05/01/1996 - 04/30/2000 FY98: \$64,167 Total: \$169,167 <i>Prin. Invest.:</i> D R TALHAM, J H ADAIR <i>Tech. Officer:</i> MSFC/C R TALLEY CASE Category: 19 - PHYSICAL SCIENCE, OTHER | NAGW 5210 UNIVERSITY OF FLORIDA 3922 PLANETARY AEROSOL MONITOR/INTEGRATED DUST ANALYZER 10/03/1996 - 05/31/1997 FY98: \$0 Total: \$70,000 <i>Prin. Invest.:</i> B S GUSTAFSON <i>Tech. Officer:</i> HQ/T KOSTIUK, HQ/H C BRINTON CASE Category: 19 - PHYSICAL SCIENCE, OTHER |
| NAG 8 1251 UNIVERSITY OF FLORIDA 3915 R/S " CONFINEMENT AND PROPULSION CHARACTERISTICS OF THE GAS-DYNAMIC MIRROR FUSION ROCKET" 12/23/1996 - 12/31/1998 FY98: \$60,000 Total: \$185,000 <i>Prin. Invest.:</i> S ANGHZIE <i>Tech. Officer:</i> MSFC/W J EMRICH, JR. CASE Category: 47 - METAL & MATERIALS ENGR | NAG10 145 UNIVERSITY OF FLORIDA 3923 GENETICALLY ENGINEERED PLANT BIOMONITOR IN MICRO- GRAVITY 09/21/1994 - 09/30/1998 FY98: \$0 Total: \$486,531 <i>Prin. Invest.:</i> R J FERL <i>Tech. Officer:</i> KSC/W M KNOTT CASE Category: 55 - AGRICULTURE |
| NAGW 2482 UNIVERSITY OF FLORIDA 3916 NAGW-2482/UNIV FLORIDA/OPTICAL PROPERTIES OF FLUFF Y DUST-AGGREGATES IN COMET COMAE & INTERPLANETARY 05/23/1991 - 10/31/1997 FY98: -\$1,175 Total: \$349,105 <i>Prin. Invest.:</i> B GUSTAFSON <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> HQ/J T BERGSTRALH CASE Category: 11 - ASTRONOMY | NAG10 200 UNIVERSITY OF FLORIDA 3924 PROGRAM TO SUPPORT AND STIMULATE STUDENT'S EDUCATIONAL ACTIVITIES AND EXPERIENCES 09/27/1996 - 09/30/1997 FY98: -\$32,707 Total: \$370,389 <i>Prin. Invest.:</i> H CAMPINS <i>Tech. Officer:</i> KSC/G BUCKINGHAM CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS |
| NAGW 2957 UNIVERSITY OF FLORIDA 3917 SPECTROSCOPIC STUDIES OF POLYCYCLIC AROMATIC CATION S IN MATRICES 03/04/1992 - 03/31/1997 FY98: -\$16,469 Total: \$338,531 <i>Prin. Invest.:</i> M T VALA <i>Tech. Officer:</i> HQ/L J CAROFF CASE Category: 11 - ASTRONOMY | NAG10 222 UNIVERSITY OF FLORIDA 3925 PROGRAM TO SUPPORT & STIMULATE STUDENTS EDUCATION- AL ACTIVITIES & EXPERIENCES 09/09/1997 - 09/30/1998 FY98: \$0 Total: \$377,285 <i>Prin. Invest.:</i> H CAMPINS <i>Tech. Officer:</i> KSC/R MCKINNEY CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS |
| NAGW 4329 UNIVERSITY OF FLORIDA 3918 SATELLITE DATA ASSIMILATION IN THE MIAMI OCEAN MODEL: 03/04/1995 - 09/30/1997 FY98: \$0 Total: \$205,999 <i>Prin. Invest.:</i> A J MARIANO <i>Tech. Officer:</i> HQ/R A SCHIFFER CASE Category: 33 - OCEANOGRAPHY | NAG10 231 UNIVERSITY OF FLORIDA 3926 STUDY TO EVALUATE VARIETY OF INCUBATOR MODELS 09/17/1997 - 11/17/1997 FY98: \$0 Total: \$19,972 <i>Prin. Invest.:</i> G JOHNSRUD <i>Tech. Officer:</i> KSC/K HARER CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAGW 4363 UNIVERSITY OF FLORIDA 3919 A NOVEL METHOD FOR AIR REVITALIZATION CO2-REMOVAL BY A PULSATING DEVICE 03/22/1995 - 02/28/1998 FY98: \$0 Total: \$150,419 <i>Prin. Invest.:</i> R R NARAYANAN <i>Tech. Officer:</i> HQ/M AVERNER CASE Category: 59 - LIFE SCIENCE, OTHER | NAG10 232 UNIVERSITY OF FLORIDA 3927 CORPORATE MEMORY & SPACECRAFT COURSE DEVELOPMENT 09/22/1997 - 09/22/1998 FY98: \$0 Total: \$130,631 <i>Prin. Invest.:</i> H CAMPINS, PH.D <i>Tech. Officer:</i> KSC/G BUCKINGHAM CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAGW 4640 UNIVERSITY OF FLORIDA 3920 HUMAN DIMENSIONS OF DEFORESTATION AND REGROWTH IN THE BRAZILIAN AMAZON 07/11/1995 - 09/30/1997 FY98: \$0 Total: \$107,341 <i>Prin. Invest.:</i> S SANDERSON, D SKOLE, C WOOD <i>Tech. Officer:</i> HQ/N MAYNARD, HQ/R C HARRISS CASE Category: 79 - SOCIAL SCIENCE, OTHER | NAS 3 26314 UNIVERSITY OF FLORIDA 3928 ULTRA HIGH TEMPERATURE REACTOR AND ENERGY CONVERSION 05/30/1991 - 05/07/1999 FY98: \$75,000 Total: \$2,748,999 <i>Prin. Invest.:</i> N J DIAZ, F ANGHAI, E T DUGAN <i>Tech. Officer:</i> LERC/H S BLOOMFIELD CASE Category: 13 - PHYSICS |
| NAGW 4916 UNIVERSITY OF FLORIDA 3921 COMETS: A COORDINATED GROUND AND SPACE BASED INFRARED STUDY OF 2 TAXONOMIC CLASSES 02/08/1996 - 03/15/1997 FY98: -\$86 Total: \$44,093 <i>Prin. Invest.:</i> H CAMPINS <i>Tech. Officer:</i> HQ/E BARKER, HQ/J RAHE CASE Category: 13 - PHYSICS | NAS 8 40592 UNIVERSITY OF FLORIDA 3929 CRYSTAL GROWTH OF GASES AND GAS SEMICONDUCTOR MATERIALS BY THE LIQUID ENCAPSULATED MELT ZONEMET 04/17/1995 - 04/16/1997 FY98: \$0 Total: \$368,631 <i>Prin. Invest.:</i> R ABBASCHIAN <i>Tech. Officer:</i> MSFC/J R WATKINS CASE Category: 47 - METAL & MATERIALS ENGR |

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| <p>NAS 8 97110 UNIVERSITY OF FLORIDA 3930 OPERATION AND MANAGEMENT FOR THE NASA TECH TRANS- FER CEN- TER 02/02/1997 - 11/30/1998 FY98: \$1,358,581 Total: \$2,479,077 Prin. Invest.: J R THORNTON Tech. Officer: MSFC/J POE CASE Category: 42 - ASTRONAUTICAL ENGR</p> | <p>NGT 40015 UNIVERSITY OF FLORIDA 3938 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM 10/17/1989 - 01/31/1998 FY98: -\$33,205 Total: \$2,825,399 Prin. Invest.: F CAMPINS Tech. Officer: HQ/L KEFFER CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p> |
| <p>NAS10 96004 UNIVERSITY OF FLORIDA 3931 ON-SITE MEDICAL SUPPORT DURING STS LAUNCH & LAND- ING OPERA- TIONS 09/13/1996 - 09/30/1998 FY98: \$109,006 Total: \$221,477 Prin. Invest.: A H NEIMS Tech. Officer: KSC/D A TIPTON CASE Category: 56 - MEDICAL</p> | <p>NGT 51242 UNIVERSITY OF FLORIDA 3939 GRADUATE STUDENT RESEARCHERS PROGRAM 08/16/1994 - 01/11/1997 FY98: \$0 Total: \$44,000 Prin. Invest.: R VARAYANAN Tech. Officer: LERC/F MONTEGANI CASE Category: 43 - CHEMICAL ENGR</p> |
| <p>NCC 1 216 UNIVERSITY OF FLORIDA 3932 EFFICIENT APPROXIMATIONS FOR STRUCTURAL OPTIMIZATION UNDER MULTIPLE DAMAGE CASES 08/29/1995 - 08/31/1997 FY98: -\$23 Total: \$125,858 Prin. Invest.: R T HAFTKA Tech. Officer: LARC/S J SCOTTI CASE Category: 49 - ENGINEERING, OTHER</p> | <p>NGT 51385 UNIVERSITY OF FLORIDA 3940 GRADUATE STUDIES RESEARCHER PROGRAM 06/26/1995 - 06/30/1997 FY98: \$0 Total: \$44,000 Prin. Invest.: B S GUSTAFON Tech. Officer: HQ/D HOLLAND CASE Category: 11 - ASTRONOMY</p> |
| <p>NCC 1 268 UNIVERSITY OF FLORIDA 3933 ADJOINT TECHNIQUES FOR TOPOLOGY OPTIMIZATION OF STRUCTURES UNDER DAMAGE CONDITIONS 11/24/1997 - 11/23/1998 FY98: \$65,195 Total: \$65,195 Prin. Invest.: R T HAFTKA, M A AKGUN Tech. Officer: LARC/K C WU, LARC/S J SCOTTI CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NGT 51410 UNIVERSITY OF FLORIDA 3941 GRADUATE STUDENT RESEARCHERS PROGRAM 06/28/1995 - 02/10/1998 FY98: \$0 Total: \$44,000 Prin. Invest.: R VARAYANAN Tech. Officer: HQ/D GLASCO CASE Category: 43 - CHEMICAL ENGR</p> |
| <p>NCC 2 825 UNIVERSITY OF FLORIDA 3934 ROLE OF CORTICOSTEROIDS IN BONE LOSS DURING SPACE FLIGHT 09/09/1993 - 12/31/1997 FY98: \$0 Total: \$458,876 Prin. Invest.: T WRONSKI Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p> | <p>NGT 51418 UNIVERSITY OF FLORIDA 3942 GSRP 08/28/1995 - 09/30/1997 FY98: \$0 Total: \$44,000 Prin. Invest.: R DIJARAN Tech. Officer: HQ/G LESANE CASE Category: 12 - CHEMISTRY</p> |
| <p>NCC 2 5246 UNIVERSITY OF FLORIDA 3935 OPTIMIZATION OF INFRARED DETECTOR ARRAYS FOR AIRBORNE ASTRONOMY 12/03/1997 - 12/31/1998 FY98: \$74,910 Total: \$74,910 Prin. Invest.: C M TELESKO, R K PIKA Tech. Officer: ARC/E F ERICKSON, ARC/M R HAAS CASE Category: 11 - ASTRONOMY</p> | <p>NGT 51655 UNIVERSITY OF FLORIDA 3943 GRAD STUDENT RESEARCH PROGRAM 08/15/1996 - 06/30/1997 FY98: \$0 Total: \$22,000 Prin. Invest.: C TELESKO Tech. Officer: HQ/D HOLLAND CASE Category: 1 - ASTRONOMY</p> |
| <p>NCC 3 476 UNIVERSITY OF FLORIDA 3936 IN-SITU MONITORING OF CRYSTAL GROWTH USING MEPHISTO 05/22/1996 - 05/21/1999 FY98: \$170,000 Total: \$282,500 Prin. Invest.: R ABBASCHIAN Tech. Officer: LERC/C DEGON CASE Category: 13 - PHYSICS</p> | <p>NGT 51656 UNIVERSITY OF FLORIDA 3944 GRADUATE STUDENT RESEARCHERS PROGRAM 07/08/1996 - 06/30/1997 FY98: \$0 Total: \$21,500 Prin. Invest.: C TELESKO Tech. Officer: HQ/D HOLLAND CASE Category: 11 - ASTRONOMY</p> |
| <p>NCC 8 149 UNIVERSITY OF FLORIDA 3937 RESEARCH IN COMMUNICATING SCIENTIFIC KNOWLEDGE 12/22/1997 - 12/21/1998 FY98: \$348,938 Total: \$348,938 Prin. Invest.: D TREISE Tech. Officer: MSFC/J M HORACK, MSFC/G S WILSON CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p> | <p>NGT 51695 UNIVERSITY OF FLORIDA 3945 GRAD STUDENT RESEARCH PROGRAM 08/07/1996 - 08/09/1998 FY98: \$0 Total: \$22,000 Prin. Invest.: R NARAYANAN Tech. Officer: HQ/G LESANE CASE Category: 43 - CHEMICAL ENGR</p> |

NGT 70332 UNIVERSITY OF FLORIDA **3946**
GRADUATE STUDENT RESEARCHERS (UMF) PROGRAM
 06/29/1993 – 12/31/1996 FY98: -\$2 Total: \$65,998
Prin. Invest.: T D CARR
Tech. Officer: HQ/D K RUSSELL
CASE Category: 11 – ASTRONOMY

NGT 3 52320 UNIVERSITY OF FLORIDA **3947**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/06/1996 – 08/10/1998 FY98: \$0 Total: \$33,001
Prin. Invest.: R NARAYANAN
Tech. Officer: HQ/D MONTEGANI
CASE Category: 43 – CHEMICAL ENGR

NGT 5 30022 UNIVERSITY OF FLORIDA **3948**
FIRE, INSECT OUTBREAKS, AND CLIMATE CHANGE IN BORE OF CROSS-SCALE DYNAMICS
 10/14/1996 – 08/31/1999 FY98: \$14,301 Total: \$58,301
Prin. Invest.: C HOLLING
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 40025 UNIVERSITY OF FLORIDA **3949**
THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PR
 12/19/1996 – 01/31/2001 FY98: \$494,998 Total: \$894,996
Prin. Invest.: H CAMPINS
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50018 UNIVERSITY OF FLORIDA **3950**
MODIFYING EXISTING INSTRUMENTATION TO ADVANCE PIXO UCTION TECHNIQUES
 07/14/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: C M TELESCO
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50021 UNIVERSITY OF FLORIDA **3951**
THE CHEM & PHY PROPERTIES OF COMETS HALE-BOPP (199 6 B2)
 07/17/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: H CAMPINS
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 50026 UNIVERSITY OF FLORIDA **3952**
THE EFFECT OF GRAVITY ON THE SEPARATION SPECIES
 07/14/1997 – 08/14/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: R NARAYANAN
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50031 UNIVERSITY OF FLORIDA **3953**
DETECTING PLANETS IN CIRCUMSTELLAR DISKS
 07/17/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: S DERMOTT
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 50074 UNIVERSITY OF FLORIDA **3954**
RAPID THERMAL PROCESSING OF INDIUM ARSENIDE USING RANSPORT REACTOR STUDENT – DANIEL
 09/05/1997 – 08/31/1999 FY98: \$22,000 Total: \$42,960
Prin. Invest.: T ANDERSON
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50081 UNIVERSITY OF FLORIDA **3955**
HIGH PERFORMANCE POLYMERS FOR CATION SEPARATION AN ENVIRONMENTS
 09/05/1997 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: DURAN
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50134 UNIVERSITY OF FLORIDA **3956**
A COMPLETE STUDY OF FAR-INFRARED RADIATION IN NEAR OMBINING ISO DATA WITH BRACKETT GAMMA SPECTROSCOP
 09/10/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: R M ELSTON
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50168 UNIVERSITY OF FLORIDA **3957**
SCATTERING PROPERTIES OF AGGREGATE DUST PARTICLES GSRP REECIPIENT:JOANNA E. THOMAS-OSIP
 09/10/1997 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: B GUSTAFSON
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50177 UNIVERSITY OF FLORIDA **3958**
THE ORIGIN OF THE INFRARED EXCESS IN PRE-MAIN-SEQU ENCE STARS(STUDENT – E. POLOMSKI)
 05/26/1998 – 06/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: C TELESCO
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 – ASTRONOMY

NGT13 52710 UNIVERSITY OF FLORIDA **3959**
NASA GRADUATE PROGRAM-USING REMOTE SENSING TECHNIQUES TO ASSESS STRESS CONDITIONS
 07/21/1997 – 07/31/1999 FY98: \$22,000 Total: \$43,846
Prin. Invest.: S SHIH
Tech. Officer: JSC/A JOYCE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 1 2002 UNIVERSITY OF MIAMI **3960**
A COMPACT AIRBORNE SYS FOR SO2 & DMF MEAS FOR USE ON FUT GTE MISSIONS
 02/09/1998 – 02/08/1999 FY98: \$196,282 Total: \$196,282
Prin. Invest.: E S SALTZMAN
Tech. Officer: LARC/J M HOELL, LARC/R J BENDURA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 1945 UNIVERSITY OF MIAMI **3961**
INTEGRATION OF SLR AND VLBI DATA TO OBTAIN VERY AC CURATE HORIZONTAL AND VERTICAL MOTIONS
 03/12/1992 – 09/14/1998 FY98: \$25,000 Total: \$241,000
Prin. Invest.: C HARRISON
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 2207 UNIVERSITY OF MIAMI **3962**
GPS GEODETIC MONITORING OF SOUTH AMERICA - NOZCA P LATE CON-
VERGENCE (SNAPP)
 03/09/1993 - 03/14/1999 FY98: \$16,999 Total: \$388,999
Prin. Invest.: T H DIXON
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 2209 UNIVERSITY OF MIAMI **3963**
PRESENT DAY KINEMATICS AND EVALUATION OF TRANSPENINSULA SLIP
IN NORTHERN BAJA CALIFORNIA
 03/09/1993 - 03/14/1998 FY98: \$0 Total: \$292,998
Prin. Invest.: T H DIXON
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 2969 UNIVERSITY OF MIAMI **3964**
SOURCES OF THE EARTH'S MAGNETIC FIELD STUDIED USING ORSTED
DATA
 06/15/1995 - 06/25/1999 FY98: \$0 Total: \$150,000
Prin. Invest.: C HARRISON
Tech. Officer: GSFC/P T TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3036 UNIVERSITY OF MIAMI **3965**
GEODETIC MONITORING OF ACTIVE VOLCANOES WITH SAR INTERFER-
OMETRY
 07/27/1995 - 08/14/1998 FY98: \$0 Total: \$175,000
Prin. Invest.: T DIXON
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4020 UNIVERSITY OF MIAMI **3966**
CONTINUATION OF GRANT
 02/26/1997 - 02/28/1998 FY98: \$0 Total: \$43,356
Prin. Invest.: J M PROSPERO, I CHIAPELLO
Tech. Officer: GSFC/J HERMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4025 UNIVERSITY OF MIAMI **3967**
GEODETIC MONITORING OF ACTIVE VOLCANOES WITH SAR I RADARSAT
 04/25/1997 - 02/28/1999 FY98: \$56,753 Total: \$113,703
Prin. Invest.: T H DIXON
Tech. Officer: GSFC/S H GOGINENI
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6033 UNIVERSITY OF MIAMI **3968**
AN INTEGRATED GPS SYSTEM FOR MONITORING ACTIVE VOLCANOES
 10/02/1997 - 09/30/1999 FY98: \$199,999 Total: \$199,999
Prin. Invest.: T H DIXON
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6154 UNIVERSITY OF MIAMI **3969**
GLOBAL SURVEY OF THE SPECTRAL ABSORPTION PROPERTIES ON MEAS-
UREMENTS OF ARCHIVED AEROSOL FILTERS
 09/08/1997 - 09/14/1998 FY98: \$0 Total: \$66,906
Prin. Invest.: J PROSPERO
Tech. Officer: GSFC/J HERMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6255 UNIVERSITY OF MIAMI **3970**
SATELLITE DATA ASSIMILATION IN THE MIAMI OCEAN MO OCEANIC
HEAT TRANSPORT CALCULATIONS AND PROCESS S
 08/22/1997 - 09/30/1998 FY98: \$0 Total: \$102,999
Prin. Invest.: A MARIANO
Tech. Officer: GSFC/E J LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6326 UNIVERSITY OF MIAMI **3971**
"ALGORITHM DEVELOPMENT AND EVALUATION, AND SUPPORT FOR
AVHRR/OCEAN3 PATHFINDERS
 09/11/1997 - 06/30/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: R EVANS
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6576 UNIVERSITY OF MIAMI **3972**
SEAWIFS DATA COLLECTION, CALIBRATION AND PROCESSING FOR THE
INDIAN OCEAN
 12/15/1997 - 10/31/1999 FY98: \$50,497 Total: \$50,497
Prin. Invest.: R EVANS
Tech. Officer: GSFC/J YODER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6577 UNIVERSITY OF MIAMI **3973**
HIGH ACCURACY INFRARED INTERFEROMETRIC VALIDATION OF SAT-
ELLITE SURFACE TEMPERATURE RETRIEVALS
 12/12/1997 - 10/31/1999 FY98: \$438,854 Total: \$438,854
Prin. Invest.: P J MINNETT
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6610 UNIVERSITY OF MIAMI **3974**
GEOCORE: GEOGRAPHIC INFORMATION SYSTEMS (GIS) FACILITY FOR
COASTAL AND OCEANOGRAPHIC RESEARCH AND
 12/16/1997 - 11/10/1998 FY98: \$189,264 Total: \$189,264
Prin. Invest.: G HEALY
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6659 UNIVERSITY OF MIAMI **3975**
A STUDY OF THE IMPACT OF OCEANIC BIOLOGICAL PROCESSES ON THE
AIR-SEA EXCHANGE OF METHYL BROMIDE:
 11/20/1997 - 09/14/1999 FY98: \$214,062 Total: \$214,062
Prin. Invest.: E S ILTZMAN
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 5 7110 UNIVERSITY OF MIAMI **3976**
TOMS VALIDATION BASED ON PROFILES OF AEROSOL PROPERTIES IN
THE LOWER TROPOSPHERE AS OBTAINED WITH
 03/18/1998 - 03/11/1999 FY98: \$156,871 Total: \$156,871
Prin. Invest.: D M PROSPERO
Prin. Invest.: NONE
Tech. Officer: GSFC/J HERMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7668 UNIVERSITY OF MIAMI **3977**
RELATIVE AND ABSOLUTE SEA LEVEL CHANGE IN GULF OF NEW MEXICO, A STUDY OF RAPID LAND SUBSIDENCE'S
 09/28/1998 – 03/31/1999 FY98: \$25,000 Total: \$25,000
Prin. Invest.: C G HARRISON
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 7674 UNIVERSITY OF MIAMI **3978**
INTEGRATION OF LONG TERM OCEANIC AEROSOL RECORDS FROM UNIVERSITY OF MIAMI NETWORK STATIONS WITH
 09/09/1998 – 08/31/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: J M PROSPERO
Tech. Officer: GSFC/M I MISHCHENKO
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAGW 273 UNIVERSITY OF MIAMI **3979**
"AN INVESTIGATION OF THE UTILITY OF OCEAN COLOR IMAGERY FOR DELINEATION OF OCEANIC PROCESSES IN THE
 11/01/1981 – 05/31/1997 FY98: \$0 Total: \$3,040,582
Prin. Invest.: O BROWN, O B BROWN, R H EVANS
Tech. Officer: HQ/M R LEWIS, HQ/W S WILSON
CASE Category: 33 – OCEANOGRAPHY

NAGW 4747 UNIVERSITY OF MIAMI **3980**
ALGORITHM DEVELOPMENT & EVAL & SUPPORT OF PRODUCT GENERATION FOR AVHRR/OCEANS PATHFINDER
 09/12/1995 – 06/30/1997 FY98: \$0 Total: \$285,956
Prin. Invest.: R H EVANS
Tech. Officer: HQ/M E MAIDEN
CASE Category: 33 – OCEANOGRAPHY

NAGW 4999 UNIVERSITY OF MIAMI **3981**
GEODETTIC MONITORING OF ACTIVE VOLCANOES WITH SAR INTERFEROMETRY FROM RADARSAT
 03/20/1996 – 02/28/1998 FY98: \$0 Total: \$70,641
Prin. Invest.: T H DIXON
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAS 5 30694 UNIVERSITY OF MIAMI **3982**
MAINTENANCE & OPERATION OF ATS-3 COMMUNICATION SYSTEM (CONTRACT TRANSFERRED TO LEWIS RES. CNTR)
 05/23/1989 – 07/31/1998 FY98: \$30,000 Total: \$848,444
Prin. Invest.: O BROWN
Tech. Officer: GSFC/R WALES
CASE Category: 49 – ENGINEERING, OTHER

NAS 5 31361 UNIVERSITY OF MIAMI **3983**
MODIS – INVESTIGATION
 01/15/1992 – 12/14/2001 FY98: \$985,000 Total: \$4,784,000
Prin. Invest.: O B BROWN
Tech. Officer: GSFC/H OSEROFF
CASE Category: 33 – OCEANOGRAPHY

NAS 5 31362 UNIVERSITY OF MIAMI **3984**
EOS/MODIS INVESTIGATION ENTITLED: "PROCESSING/ CALIBRATION FOR OCEAN OBSERVATION WITH EOS/MODIS"
 12/13/1991 – 12/14/2001 FY98: \$1,360,000 Total: \$6,756,000
Prin. Invest.: R EVANS
Tech. Officer: GSFC/H OSEROFF
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 5 31363 UNIVERSITY OF MIAMI **3985**
MODERATE RESOLUTION IMAGING SPECTROMETER INVESTIGATION – OCEAN
 01/15/1992 – 12/14/2001 FY98: \$710,000 Total: \$3,764,000
Prin. Invest.: H GORDON
Tech. Officer: GSFC/H OSEROFF
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 5 31734 UNIVERSITY OF MIAMI **3986**
DEVELOPMENT FOR SEAWIFS
 11/22/1991 – 11/21/1998 FY98: \$0 Total: \$369,000
Prin. Invest.: H GORDAN
Tech. Officer: GSFC/C MCLAIN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 2 843 UNIVERSITY OF MIAMI **3987**
FLIGHT TRAINING FOR THE HIGH TECHNOLOGY TRANSPORT COCKPIT
 01/31/1994 – 09/30/1998 FY98: \$0 Total: \$575,688
Prin. Invest.: E L WIENER
Tech. Officer: ARC/S M CASNER, ARC/E A PALMER
CASE Category: 69 – PSYCHOLOGY, OTHER

NGT 5 30011 UNIVERSITY OF MIAMI **3988**
MID-OCEAN MESOSCALE VARIABILITY AS DEDUCED FROM TO HIGH-RESOLUTION NUMERICAL MODELING
 10/14/1996 – 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: O BROWN
Tech. Officer: GSFC/G ASRAR
CASE Category: 33 – OCEANOGRAPHY

NGT 5 30027 UNIVERSITY OF MIAMI **3989**
MONITORING ABSOLUTE SEA LEVEL CHANGE AND COASTAL S
 10/17/1996 – 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: T DIXON
Tech. Officer: GSFC/G ASRAR
CASE Category: 33 – OCEANOGRAPHY

NGT 5 90048 UNIVERSITY OF MIAMI **3990**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH
 02/04/1997 – 08/14/1998 FY98: \$8,000 Total: \$45,523
Prin. Invest.: K Y FUNG
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 – ENGINEERING, OTHER

NAG 1 1104 UNIVERSITY OF SOUTH FLORIDA **3991**
COMPARISON OF 2 MEGOHM HOLMIUM AND 10 MEGOHM CARBON OXYGEN 2 LIDAR FOR ATMOSPHERIC BACKSCATTER AND
 02/13/1990 – 09/30/1998 FY98: \$0 Total: \$448,548
Prin. Invest.: D K KILLINGER, K CHAN
Tech. Officer: LARC/P BROCKMAN, LARC/G J KOCH
CASE Category: 31 – ATMOSPHERIC SCIENCE

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| <p>NAG 2 1000 UNIVERSITY OF SOUTH FLORIDA 3992 EFFECTS OF WEIGHTLESSNESS ON THE AVIAN VISUO-VESTIBULAR SYSTEM: IMMUNOHISTOCHEMICAL ANALYSIS 08/27/1995 - 12/31/1998 FY98: \$0 Total: \$122,031 <i>Prin. Invest.:</i> T SHIMIZU <i>Tech. Officer:</i> ARC/C M WINGET, ARC/G C JAHNS <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)</p> | <p>NAG 9 959 UNIVERSITY OF SOUTH FLORIDA 4000 DEVELOP INTERACTIVE ASTRONAUT TRAINING MATERIALS 09/23/1997 - 03/22/1999 FY98: \$0 Total: \$11,500 <i>Prin. Invest.:</i> L L FOBBINS <i>Tech. Officer:</i> JSC K P LULLA <i>CASE Category:</i> 13 - OCEANOGRAPHY</p> |
| <p>NAG 5 3446 UNIVERSITY OF SOUTH FLORIDA 3993 BOTTOM-ASSESSMENT AND WATER-CONSTITUTENT ALGORITHM S FOR THE ETM IN THE COASTAL ZONE 10/10/1996 - 04/30/1999 FY98: \$174,300 Total: \$380,742 <i>Prin. Invest.:</i> K L CARTER <i>Tech. Officer:</i> GSFC/D J WILLIAMS <i>CASE Category:</i> 33 - OCEANOGRAPHY</p> | <p>NAGW 465 UNIVERSITY OF SOUTH FLORIDA 4001 DEV.OF IN SITE TO COMPLEMENT OCEAN COLOR REMOTE SENSING 05/05/1993 - 03/31/1998 FY98: \$0 Total: \$1,977,184 <i>Prin. Invest.:</i> K L CARTER <i>Tech. Officer:</i> HQ/11 R LEWIS, HQ/W S WILSON <i>CASE Category:</i> 13 - OCEANOGRAPHY</p> |
| <p>NAG 5 5202 UNIVERSITY OF SOUTH FLORIDA 3994 COLLABORATION ON A STUDY OF SIGMA NAUGHT BLOOM EFFECTS ON RADAR ALTIMETERS 06/18/1998 - 03/31/1999 FY98: \$15,000 Total: \$15,000 <i>Prin. Invest.:</i> G T MITCHUM <i>Tech. Officer:</i> GSFC/G S HAYNE <i>CASE Category:</i> 33 - OCEANOGRAPHY</p> | <p>NAGW 3459 UNIVERSITY OF SOUTH FLORIDA 4002 SIMULATION ANALYSIS OF DISSOLVED AND PARTICULATE COMPONENTS 03/31/1993 - 09/30/1997 FY98: \$0 Total: \$800,000 <i>Prin. Invest.:</i> J L WALSH <i>Tech. Officer:</i> HQ/F E MURPHY, HQ/D M BUTLER <i>CASE Category:</i> 33 - OCEANOGRAPHY</p> |
| <p>NAG 5 6301 UNIVERSITY OF SOUTH FLORIDA 3995 HYPERSPPECTRAL CHARACTERIZATION FOR APPLICATION TO CARBON CYCLING IN COASTAL REGIONS 09/02/1997 - 08/14/1999 FY98: \$94,618 Total: \$238,487 <i>Prin. Invest.:</i> P COBLE <i>Tech. Officer:</i> GSFC/J YODER <i>CASE Category:</i> 33 - OCEANOGRAPHY</p> | <p>NAGW 3483 UNIVERSITY OF SOUTH FLORIDA 4003 EVALUATION OF REGIONAL AND TEMPORAL VARIATION OF PRIMARY PRODUCTIVITY IN CASE II OCEAN SHELF WATERS 05/06/1993 - 03/31/1998 FY98: \$0 Total: \$914,516 <i>Prin. Invest.:</i> F MULLER-KARGER <i>Tech. Officer:</i> HQ/C E WICKLAND, HQ/A C JANETOS <i>CASE Category:</i> 31 - OCEANOGRAPHY</p> |
| <p>NAG 5 6448 UNIVERSITY OF SOUTH FLORIDA 3996 SYNOPTIC ANALYSIS OF FACTORS INFLUENCING CARBON FLUXES AT THE CARIACO CONTINENTAL MARGIN TIME SER 10/24/1997 - 09/30/1998 FY98: \$148,894 Total: \$148,894 <i>Prin. Invest.:</i> F MULLER-KARGER <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> | <p>NAGW 3618 UNIVERSITY OF SOUTH FLORIDA 4004 INCORPORATION OF SEAWIFS DATA INTO COUPLED PHYSICAL/BIOLOGICAL MODELS OF THE ARABIAN SEA 06/09/1993 - 03/30/1998 FY98: \$0 Total: \$517,101 <i>Prin. Invest.:</i> M ELIETHER <i>Tech. Officer:</i> HQ/R E MURPHY, HQ/D M BUTLER <i>CASE Category:</i> 31 - OCEANOGRAPHY</p> |
| <p>NAG 5 6449 UNIVERSITY OF SOUTH FLORIDA 3997 A NUMERICAL ANALYSIS OF NEW NITROGEN SOURCES OF NO3 AND N2 EFFECTING CARBON CYCLING IN THE SOUTH 10/24/1997 - 10/14/1998 FY98: \$192,884 Total: \$192,884 <i>Prin. Invest.:</i> J WALSH <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> | <p>NAGW 3950 UNIVERSITY OF SOUTH FLORIDA 4005 INVESTIGATION OF THE RESPONSE OF THE ARABIAN SEA TO THE SOUTHWEST MONSOON USING AIRCRAFT AND SATELL 04/21/1994 - 04/30/1998 FY98: \$0 Total: \$299,927 <i>Prin. Invest.:</i> P G COBLE, P STEGMANN <i>Tech. Officer:</i> HQ/A C JANETOS <i>CASE Category:</i> 31 - OCEANOGRAPHY</p> |
| <p>NAG 8 1381 UNIVERSITY OF SOUTH FLORIDA 3998 RESEARCH "DEVELOPMENT OF AN INSULIN SECRETING IMMUNOPRIVILEGED CELL-CELL AGGREGATE UTILIZING 06/26/1997 - 12/31/2000 FY98: \$75,000 Total: \$143,000 <i>Prin. Invest.:</i> D CAMERON <i>Tech. Officer:</i> MSFC/C TALLEY, MSFC/S GONDA <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER</p> | <p>NAG10 204 UNIVERSITY OF SOUTH FLORIDA 4006 EDUCATION GRANT ENTITLED "YES WE CARE" 01/07/1997 - 06/30/1999 FY98: \$66,272 Total: \$185,396 <i>Prin. Invest.:</i> R E HEVNING <i>Tech. Officer:</i> KSC/J A DIGGS <i>CASE Category:</i> 41 - AERONAUTICAL ENGR</p> |
| <p>NAG 9 648 UNIVERSITY OF SOUTH FLORIDA 3999 EVALUATION OF OVARIAN TUMOR CELL GROWTH AND GENE EXPRESSION 10/28/1992 - 06/11/1999 FY98: \$110,000 Total: \$600,000 <i>Prin. Invest.:</i> J L BECKER <i>Tech. Officer:</i> JSC/S R GONDA <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)</p> | <p>NAS 3 26412 UNIVERSITY OF SOUTH FLORIDA 4007 ACTS PROPAGATION EXPERIMENTS 05/03/1993 - 04/29/1999 FY98: \$56,750 Total: \$341,517 <i>Prin. Invest.:</i> R E HEVNING <i>Tech. Officer:</i> LERC/3 J GUNDERMAN <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER</p> |

NAS 5 31716 UNIVERSITY OF SOUTH FLORIDA **4008**
EARTH OBSERVING SYSTEM MODIS/HRIS TEAM MEMBER INVESTIGATION
 01/15/1992 – 12/14/2001 FY98: \$605,000 Total: \$3,499,168
Prin. Invest.: K R CARDER
Tech. Officer: GSFC/H OSEROFF
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 5 97128 UNIVERSITY OF SOUTH FLORIDA **4009**
CALVAL OF CARBON FLUXES FOR SIMBIOS
 08/18/1997 – 08/17/1999 FY98: \$47,000 Total: \$343,999
Prin. Invest.: F E MULLER-KARGER
Tech. Officer: GSFC/C R MCCLAIN
CASE Category: 33 – OCEANOGRAPHY

NAS 5 97137 UNIVERSITY OF SOUTH FLORIDA **4010**
STRAY LIGHT & ATMOSPHERIC ADJACENCY EFFECTS FOR LARGE FOV OCEAN VIEWING SPACE SENSORS
 09/23/1997 – 09/22/1999 FY98: \$31,000 Total: \$219,611
Prin. Invest.: K CARTER
Tech. Officer: GSFC/J L MUELLER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 8 31 UNIVERSITY OF SOUTH FLORIDA **4011**
TECHNOLOGY REINVESTMENT PROGRAM
 04/11/1994 – 09/30/1997 FY98: \$0 Total: \$955,034
Prin. Invest.: S N BUSANSKY, D C KEEZER
Tech. Officer: MSFC/S LITTLE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 30270 UNIVERSITY OF SOUTH FLORIDA **4012**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/20/1994 – 09/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: M LUTHER, T BUSALACCHI
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 33 – OCEANOGRAPHY

NGT 30306 UNIVERSITY OF SOUTH FLORIDA **4013**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/10/1995 – 08/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: K L CARDER
Tech. Officer: HQ/M BALTUCK, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30316 UNIVERSITY OF SOUTH FLORIDA **4014**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/10/1995 – 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: F MULLER-KARGER
Tech. Officer: HQ/M BALTUCK, HQ/G ASRAR
CASE Category: 33 – OCEANOGRAPHY

NGT 70375 UNIVERSITY OF SOUTH FLORIDA **4015**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 08/22/1994 – 06/30/1998 FY98: \$0 Total: \$132,000
Prin. Invest.: D V LIM
Tech. Officer: HQ/D K RUSSELL
CASE Category: 59 – LIFE SCIENCE, OTHER

NGT 90060 UNIVERSITY OF SOUTH FLORIDA **4016**
PILOT BRIDGE PROGRAM FOR MINORITY ENGINEERING STUDENTS
 04/21/1992 – 07/07/1997 FY98: \$0 Total: \$110,893
Prin. Invest.: J A O'SHIELDS
Tech. Officer: HQ/B L WHITE
CASE Category: 49 – ENGINEERING, OTHER

NGT 5 30098 UNIVERSITY OF SOUTH FLORIDA **4017**
"ANALYTIC RECOGNITION AND ESTIMATION OF AEROSOL ABSORPTION IN THE REMOTE SENSING IMAGERY: A PROPOSE
 10/17/1997 – 08/31/1998 FY98: \$22,000 Total: \$22,000
Prin. Invest.: K CARDER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30143 UNIVERSITY OF SOUTH FLORIDA **4018**
EL NINO/SOUTHERN OSCILLATION IN THE ANTARCTIC CIRCUMPOLAR CURRENT
 08/27/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: G T MITHCHUM, HAAN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30159 UNIVERSITY OF SOUTH FLORIDA **4019**
FUNCTIONAL GROUPING OF PLANTS IN FLORIDA SCRUB HABITAT
 08/28/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J R BROOKS
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 2 1225 UNIVERSITY OF WEST FLORIDA **4020**
ATTENTION DIRECTING PILOTING DISPLAY: OZ A COMPUTER BASED HUMAN-CENTERED SYSTEM
 05/29/1998 – 09/30/1998 FY98: \$173,500 Total: \$173,500
Prin. Invest.: D L STILL
Tech. Officer: ARC/D C FOYLE
CASE Category: 69 – PSYCHOLOGY, OTHER

NAG 2 1226 UNIVERSITY OF WEST FLORIDA **4021**
INTELLIGENT HUMAN COMPUTER TACTILE INTERFACES FOR ROTORCRAFT & CIVIL AVIATION
 06/11/1998 – 05/31/1999 FY98: \$210,054 Total: \$210,054
Prin. Invest.: N SURI, F GUEDRY, A RAZ
Tech. Officer: ARC/S R ELLIS
CASE Category: 41 – AERONAUTICAL ENGINEER

NCC 2 1016 UNIVERSITY OF WEST FLORIDA **4022**
THE VIRTUAL SOLAR SYSTEM
 02/05/1998 – 12/31/1998 FY98: \$110,000 Total: \$110,000
Prin. Invest.: N SURI, A CANAS
Tech. Officer: ARC/M H SHIRLEY
CASE Category: 22 – COMPUTER SCIENCE

NCC 2 1036 UNIVERSITY OF WEST FLORIDA **4023**
EXPLANATION & COLLABORATION THROUGH CONCEPT MAPS
 05/07/1998 – 03/31/1999 FY98: \$196,294 Total: \$196,294
Prin. Invest.: A J CANAS
Tech. Officer: ARC/C H SCHULBACH
CASE Category: 22 – COMPUTER SCIENCE

NCC 9 37 UNIVERSITY OF WEST FLORIDA **4024**
MECHANISMS OF SENSORIMOTOR ADAPTATION TO CENTRIFUGATION
 06/15/1995 - 02/28/1998 FY98: \$0 Total: \$74,217
Prin. Invest.: F GUEDRY
Tech. Officer: JSC/W PALOSKI
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG10 165 VALENCIA COMMUNITY COLLEGE **4025**
HIGH TECH TRAINING OF INDIVIDUALS WITH DISABILITY
 06/06/1995 - 06/30/1999 FY98: \$25,043 Total: \$75,043
Prin. Invest.: K WOODBERRY
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 22 - COMPUTER SCIENCE

GEORGIA

NAG 8 1489 ALBANY STATE UNIVERSITY **4026**
DEVELOPMENT OF WEBBASED INSTRUMENTS AND IMPROVEMENT OF MINORITY INSTRUMENTS SCIENCE
 02/20/1998 - 03/01/1999 FY98: \$92,359 Total: \$92,359
Prin. Invest.: S N PANDAY
Tech. Officer: MSFC/G GORDON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG10 233 ALBANY STATE UNIVERSITY **4027**
PROJECT HIGH SCHOOL/HIGH TECH
 09/30/1997 - 09/30/1999 FY98: \$105,750 Total: \$211,500
Prin. Invest.: G L BLACK, III
Tech. Officer: KSC/E JOHNSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1714 CLARK ATLANTA UNIVERSITY **4028**
BLENDED-WING-BODY STRUCTURAL TECHNOLOGY STUDY
 04/19/1995 - 12/18/1997 FY98: \$0 Total: \$59,937
Prin. Invest.: A BADIR
Tech. Officer: LARC/J H STARNES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1727 CLARK ATLANTA UNIVERSITY **4029**
CONSTITUTIVE MODELING AND TESTING OF POLYMER MATRIX COMPOSITES INCORPORATING PHYSICAL AGING AT
 05/26/1995 - 05/31/1998 FY98: \$1 Total: \$196,615
Prin. Invest.: D R VEAZIE
Tech. Officer: LARC/T S GATES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1760 CLARK ATLANTA UNIVERSITY **4030**
AN ADAPTIVE FLOW SOLVER FOR AIRBORNE VEHICLES UNDERGOING TIME-DEPENDENT MOTIONS/DEFORMATIONS
 09/22/1995 - 09/30/1997 FY98: \$0 Total: \$325,143
Prin. Invest.: J SINGH, S TAYLOR
Tech. Officer: LARC/E M LEE-RAUSCH
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1919 CLARK ATLANTA UNIVERSITY **4031**
COMPUTATIONAL MATERIALS RESEARCH COMPUTATIONAL MATERIALS RESEARCH
 04/30/1997 - 12/01/1997 FY98: \$0 Total: \$13,591
Prin. Invest.: D R VEAZIE
Tech. Officer: LARC/T S GATES, LARC/I S RAJU
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1773 CLARK ATLANTA UNIVERSITY **4032**
TURBULENT PREMIXED METHANE-AIR COMBUSTION: EMISSIONS, CHARACTERISTICS, AND MODELING
 07/28/1995 - 07/27/1998 FY98: \$75,000 Total: \$225,000
Prin. Invest.: D YEBOAH
Tech. Officer: LERC/H D ROSS, LERC/R F LAWRENCE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1973 CLARK ATLANTA UNIVERSITY **4033**
GROWTH AND CHARACTERIZATION OF III-V SEMICONDUCTORS FOR DEVICE APPLICATIONS
 09/26/1996 - 09/24/1999 FY98: \$99,717 Total: \$199,629
Prin. Invest.: D WILLIAMS
Tech. Officer: LERC/S A ALTERNOVITZ
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1996 CLARK ATLANTA UNIVERSITY **4034**
RESEARCH FACILITY TO STUDY FLOWS THROUGH ANNULAR DIFFUSERS
 11/19/1996 - 05/31/1999 FY98: \$1 Total: \$110,139
Prin. Invest.: R TACINA
Tech. Officer: LERC/R R TACINA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2070 CLARK ATLANTA UNIVERSITY **4035**
THE CONSTRUCTION OF FINITE DIFFERENCE SCHEMES HAVING SPECIAL PROPERTIES
 08/20/1997 - 02/31/1998 FY98: \$76,714 Total: \$131,510
Prin. Invest.: F MICKENS
Tech. Officer: LERC/E MILNER
CASE Category: 21 - MATHEMATICS

NAG 4 11 CLARK ATLANTA UNIVERSITY **4036**
CHEMICALLY DERIVED DENSE ALUMINA-ZIRCONIA COMPOSITES FOR IMPROVED MECHANICAL AND WEAR EROSION PROPERTIES
 12/15/1994 - 02/31/1997 FY98: \$0 Total: \$225,000
Prin. Invest.: L T MOETI
Tech. Officer: DFRC/K K GUPTA, DFRC/E J COX
CASE Category: 43 - CHEMICAL ENGR

NAG 4 149 CLARK ATLANTA UNIVERSITY **4037**
CHEMICALLY DERIVED DENSE ALUMINA-ZIRCONIA COMPOSITES FOR IMPROVING MECHANICAL AND WEAR EROSION
 03/03/1998 - 03/03/1999 FY98: \$48,000 Total: \$48,000
Prin. Invest.: L MOETI
Tech. Officer: DFRC/E COX, DFRC/K K GUPTA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 4763 CLARK ATLANTA UNIVERSITY **4038**
CROSS SECTIONS FOR ELECTRON IMPACT EXCITATION OF PLANETARY ATMOSPHERES OBSERVATION
 06/11/1997 - 03/30/1998 FY98: \$0 Total: \$60,000
Prin. Invest.: P J TAYAL
Tech. Officer: C SFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6169 CLARK ATLANTA UNIVERSITY **4039**
THE ACCURACY OF EARTH OBSERVING SYSTEM MEASUREMENT DYNAMICS
 08/01/1997 - 07/31/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: D STEPHENSON-HAWK
Tech. Officer: C SFC/R ROOD
CASE Category: 13 - PHYSICS

NAG 5 6889 CLARK ATLANTA UNIVERSITY **4040**
ELECTRON EXCITATION CROSS SECTIONS OF ATOMS AND IONS RELEVANT TO PLANETARY ATMOSPHERES
 01/21/1998 – 03/31/1999 FY98: \$64,400 Total: \$64,400
Prin. Invest.: S TAYAL
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 – ASTRONOMY

NAG 8 1140 CLARK ATLANTA UNIVERSITY **4041**
STUDY OF DROPLET CHARACTERISTICS AT VARIOUS PRESSURE ENVIRONMENTS
 05/25/1995 – 02/20/1999 FY98: \$0 Total: \$196,281
Prin. Invest.: T BAI
Tech. Officer: MSFC/A CHOW
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NAG 8 1345 CLARK ATLANTA UNIVERSITY **4042**
RESEARCH ENTITLED: "EXPERIMENTAL AND NUMERICAL STUDIES OF COMBUSTION INSTABILITIES"
 04/16/1997 – 04/30/1999 FY98: \$99,341 Total: \$199,272
Prin. Invest.: T BAI
Tech. Officer: MSFC/A CHOW
CASE Category: 49 – ENGINEERING, OTHER

NAG 8 1493 CLARK ATLANTA UNIVERSITY **4043**
MOBILE SCIENCE, MATHEMATICS EDUCATION UNIT
 06/01/1998 – 05/31/2001 FY98: \$98,280 Total: \$98,280
Prin. Invest.: A MSEZANE
Tech. Officer: MSFC/A BEAM
CASE Category: 21 – MATHEMATICS

NAG 8 1535 CLARK ATLANTA UNIVERSITY **4044**
MASTAP FOR SCIENCE TEACHERS OPEN SUPPORT SYSTEMS (S-TOSS)
 05/07/1998 – 04/30/1999 FY98: \$200,000 Total: \$200,000
Prin. Invest.: B E ALICK
Tech. Officer: MSFC/A C BEAM
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 4447 CLARK ATLANTA UNIVERSITY **4045**
CROSS SECTIONS FOR ELECTRON IMPACT EXCITATION OF IONS RELEVANT TO PLANETARY ATMOSPHERES
 05/10/1995 – 09/30/1997 FY98: \$0 Total: \$120,000
Prin. Invest.: S TAYAL
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 11 – ASTRONOMY

NAG10 170 CLARK ATLANTA UNIVERSITY **4046**
BIOCONVERSION OF WASTE TO NUTRITIONAL PROTEIN
 06/09/1995 – 06/11/1998 FY98: \$0 Total: \$299,528
Prin. Invest.: S RODRIGUEZ-EATON
Tech. Officer: KSC/K POIMBOEUF, KSC/J SAGER
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NAS 3 27785 CLARK ATLANTA UNIVERSITY **4047**
NRA-95-1-LERC-MODELING AND TESTING OF HYBRID TITANIUM COMPOSITE LAMINATES AT NORMAL & ELEVATED TEMPERATURES
 10/20/1995 – 09/30/1998 FY98: \$60,000 Total: \$179,706
Prin. Invest.: A ABRATAN
Tech. Officer: LERC/G D ROBERTS
CASE Category: 47 – METAL & MATERIALS ENGR

NAS 3 27881 CLARK ATLANTA UNIVERSITY **4048**
STUDY OF LONG TERM DURABILITY OF POLYMER MATRIX COMPOSITES FOR HIGH TEMPERATURE APPLICATIONS
 10/10/1995 – 04/09/1999 FY98: \$60,000 Total: \$169,999
Prin. Invest.: A BADIR, K TALREJA
Tech. Officer: LERC/K J BOWLES
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NCC 1 270 CLARK ATLANTA UNIVERSITY **4049**
COMPUTATIONAL MATERIALS RESEARCH
 12/15/1997 – 12/14/1998 FY98: \$20,964 Total: \$20,964
Prin. Invest.: D R VEAZIE
Tech. Officer: LARC/T S GATES
CASE Category: 41 – AERONAUTICAL ENGR

NCC 3 454 CLARK ATLANTA UNIVERSITY **4050**
THE HENRY CECIL RANSON MCBAY CHAIR IN SPACE SCIENCE
 02/26/1996 – 02/25/1999 FY98: \$0 Total: \$750,000
Prin. Invest.: K B BOTA
Tech. Officer: LERC/J M EARLS, LERC/S DUTTA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 3 505 CLARK ATLANTA UNIVERSITY **4051**
X-RAY DIFFRACTION STUDIES OF STRUCTURAL & THERMOCHEMISTRY OF ALKALINE EARTH OXIDE COATED THERMINS
 09/26/1996 – 03/31/1998 FY98: \$0 Total: \$46,323
Prin. Invest.: D KARIKARI
Tech. Officer: LERC/C D CUBBAGE, LERC/E G WINTUCKY
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 552 CLARK ATLANTA UNIVERSITY **4052**
HIGH PERFORMANCE POLYMERS AND COMPOSITES CENTER
 04/29/1997 – 02/28/2002 FY98: \$999,988 Total: \$1,849,988
Prin. Invest.: A A MINTZ
Tech. Officer: LERC/S DUTTA, LERC/M A MEADOR
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 5 347 CLARK ATLANTA UNIVERSITY **4053**
INTEGRATION OF RESEARCH AND EDUCATION IN THE AREA OF EARTH SYSTEMS SCIENCE
 07/01/1998 – 06/30/2003 FY98: \$496,854 Total: \$496,854
Prin. Invest.: D STEPHENSON-HAWK
Tech. Officer: HQ/B WHITE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 2 828 EMORY UNIVERSITY **4054**
HETEROGENEOUS DISTRIBUTED COMPUTING FOR COMPUTATIONAL AEROSCIENCES
 03/26/1993 – 12/31/1997 FY98: -\$5,875 Total: \$185,894
Prin. Invest.: V S SUNDERAM
Tech. Officer: ARC/A C WOO, ARC/E BARSZCZ
CASE Category: 22 – COMPUTER SCIENCE

NAG 1 1213 GEORGIA INSTITUTE OF TECHNOLOGY **4055**
AIRBORNE MEASUREMENTS OF NO, NO2 AND NOY AS RELATED TO NASA'S PACIFIC EXPLORATORY MISSION
 02/19/1991 – 06/30/1997 FY98: -\$353 Total: \$1,214,206
Prin. Invest.: J D BRADSHAW, S T SANDHOLM
Tech. Officer: LARC/E V BROWELL, LARC/A F CARTER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1517 GEORGIA INSTITUTE OF TECHNOLOGY **4056**
CONTINUED DEVELOPMENT AND APPLICATION OF CIRCULATION CONTROL TECHNOLOGY FOR ADVANCED SUBSONIC
 06/14/1993 - 05/31/1997 FY98: \$0 Total: \$279,679
Prin. Invest.: R J ENGLAR
Tech. Officer: LARC/E G WAGGONER, LARC/Z T APPLIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1564 GEORGIA INSTITUTE OF TECHNOLOGY **4057**
NEW APPROACHES TO HSCT MULTIDISCIPLINARY DESIGN AND OPTIMIZATION
 12/20/1993 - 12/31/1998 FY98: \$50,000 Total: \$604,936
Prin. Invest.: D P SCHRAGE, R E FULTON, J I CRAIG
Tech. Officer: LARC/R P WESTON, LARC/J SOBIESKI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1582 GEORGIA INSTITUTE OF TECHNOLOGY **4058**
ELEVATED TEMPERATURE CRACK GROWTH BEHAVIOR IN AL ALLOY 2519 AND ITS VARIANTS
 01/28/1994 - 06/30/1998 FY98: \$1 Total: \$251,996
Prin. Invest.: A SAXENA
Tech. Officer: LARC/R P PIASCIK, LARC/J C NEWMAN JR.
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1624 GEORGIA INSTITUTE OF TECHNOLOGY **4059**
RESEARCH INTO GENETIC ALGORITHMS FOR OPTIMIZATION AND THE DESIGN OF THE GENETIC PROCESSOR
 04/21/1994 - 07/01/1997 FY98: -\$3,315 Total: \$42,686
Prin. Invest.: V K MADISSETTI *Prin. Invest.:* NONE
Tech. Officer: LARC/J H TUCKER, LARC/S K STOVER
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1631 GEORGIA INSTITUTE OF TECHNOLOGY **4060**
MODELING MACRO- AND MICRO-SCALE TURBULENT MIXING AND CHEMISTRY IN ENGINE EXHAUST PLUMES
 06/30/1994 - 09/30/1998 FY98: \$48,499 Total: \$427,157
Prin. Invest.: S MENON
Tech. Officer: LARC/W L GROSE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1662 GEORGIA INSTITUTE OF TECHNOLOGY **4061**
ECONOMIC RISK ANALYSIS OF LARGE TRANSPORT CONFIGURATIONS AND IMPLEMENTATION OF GEORGIA TECH'S
 12/07/1994 - 03/31/1998 FY98: \$15,397 Total: \$236,451
Prin. Invest.: D N MAVRIS
Tech. Officer: LARC/G L GILES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1734 GEORGIA INSTITUTE OF TECHNOLOGY **4062**
MEASUREMENTS TECHNOLOGY DEVELOPMENT TO VALIDATE DUCT LINER PROPAGATION MODELS
 06/27/1995 - 06/30/1999 FY98: \$151,531 Total: \$431,529
Prin. Invest.: K K AHUJA
Tech. Officer: LARC/M B TRACY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1766 GEORGIA INSTITUTE OF TECHNOLOGY **4063**
MEASUREMENTS OF OH, H₂ SO₄, MSA, DMSO, AND DMSO₂ ON THE NASA P-3B AIRCRAFT
 09/29/1995 - 10/31/1998 FY98: \$1 Total: \$587,001
Prin. Invest.: D L EISELE, D L MAULDIN
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1767 GEORGIA INSTITUTE OF TECHNOLOGY **4064**
NEW NASA RESEARCH GRANT
 09/28/1995 - 03/30/1998 FY98: \$1 Total: \$651,695
Prin. Invest.: D D BRADSHAW, D T SANDHOLM
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1768 GEORGIA INSTITUTE OF TECHNOLOGY **4065**
NEW NASA RESEARCH GRANT
 09/29/1995 - 03/30/1997 FY98: -\$520 Total: \$239,880
Prin. Invest.: M O RODGERS
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1769 GEORGIA INSTITUTE OF TECHNOLOGY **4066**
TROPOSPHERIC DIAGNOSTIC MODELING STUDIES OF PEM- TROPICS FIELD DATA: INVESTIGATION OF THE HOX/NOX
 09/29/1995 - 03/31/1999 FY98: \$128,794 Total: \$486,238
Prin. Invest.: D J DAVIS, D CHAMEIDES
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1778 GEORGIA INSTITUTE OF TECHNOLOGY **4067**
COMPUTATIONAL INTERFACIAL FRACTURE MECHANICS AND MATERIAL MECHANICS OF INTERFACES
 10/30/1995 - 10/31/1996 FY98: -\$1 Total: \$60,000
Prin. Invest.: S N ATLURI
Tech. Officer: LARC/I S RAJU
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1786 GEORGIA INSTITUTE OF TECHNOLOGY **4068**
SYSTEM DEFINITION AND MODULE DEVELOPMENT FOR A COMPREHENSIVE AIRCRAFT SIZING AND SYNTHESIS TOOL
 01/19/1996 - 01/18/1999 FY98: \$95,490 Total: \$230,355
Prin. Invest.: D N MAVRIS
Tech. Officer: LARC/P A GELHAUSEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1793 GEORGIA INSTITUTE OF TECHNOLOGY **4069**
ADVANCED DESIGN METHODOLOGY FOR ROBUST AIRCRAFT SIZING AND SYNTHESIS
 01/22/1996 - 01/21/1999 FY98: \$95,611 Total: \$244,720
Prin. Invest.: D N MAVRIS
Tech. Officer: LARC/P A GELHAUSEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1810 GEORGIA INSTITUTE OF TECHNOLOGY **4070**
NEW NASA GRANT AWARD
 02/22/1996 - 02/11/1999 FY98: \$50,000 Total: \$132,451
Prin. Invest.: J Q LI
Tech. Officer: LARC/W H PROSSER
CASE Category: 46 - MECHANICAL ENGR

NAG 1 1822 GEORGIA INSTITUTE OF TECHNOLOGY **4071**
A MODEL STUDY OF PEM-TROPICS OBSERVATIONS
 03/19/1996 – 03/31/1999 FY98: \$155,587 Total: \$420,092
Prin. Invest.: S LIU
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1890 GEORGIA INSTITUTE OF TECHNOLOGY **4072**
HIGH TEMPERATURE COMPOSITE/METAL LAMINATES
 01/17/1997 – 01/16/1999 FY98: \$46,017 Total: \$91,017
Prin. Invest.: W S JOHNSON
Tech. Officer: LARC/T L ST. CLAIR, LARC/S E LOWTHER
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 1 1904 GEORGIA INSTITUTE OF TECHNOLOGY **4073**
DOWNIZING GEORGIA TECH'S AIRBORNE FLUORESCENCE SPECTROMETER (AFS) FOR THE MEASUREMENT OF NITROGEN
 02/27/1997 – 10/31/1998 FY98: \$1 Total: \$562,367
Prin. Invest.: J P BRADSHAW, S SANDHOLM
Tech. Officer: LARC/J M HOELL, LARC/R J BENDURA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1951 GEORGIA INSTITUTE OF TECHNOLOGY **4074**
RAPID PROTOTYPING OF COMPOSITE STRUCTURES
 07/14/1997 – 09/30/1998 FY98: \$96,666 Total: \$120,000
Prin. Invest.: J S COLTON
Tech. Officer: LARC/E S WEISER, LARC/H L BELVIN
CASE Category: 46 – MECHANICAL ENGR

NAG 1 2008 GEORGIA INSTITUTE OF TECHNOLOGY **4075**
EXPLORATORY INVEST OF DURABILITY OF BENEFICIAL EFFECTS OF COLD WORKING OF HOLES IN ALUM ALLOYS
 02/13/1998 – 02/12/1999 FY98: \$72,001 Total: \$72,001
Prin. Invest.: W S JOHNSON
Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU
CASE Category: 46 – MECHANICAL ENGR

NAG 1 2014 GEORGIA INSTITUTE OF TECHNOLOGY **4076**
TECHNIQUES FOR IMPROVING PILOT RECOVERY FROM SYSTEM FAILURES
 03/02/1998 – 03/01/1999 FY98: \$50,386 Total: \$50,386
Prin. Invest.: A R PRITCHETT, NONE
Tech. Officer: LARC/A C TRUJILLO
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2051 GEORGIA INSTITUTE OF TECHNOLOGY **4077**
ADD. DEV. & SYSTEMS ANALYSES OF PNEUMATIC TECHNOLOGY FOR HIGH-SPEED CIVIL TRANSP AIRCRAFT
 04/06/1998 – 04/05/1999 FY98: \$98,640 Total: \$98,640
Prin. Invest.: R J ENGLAR
Tech. Officer: LARC/L S BANGERT, LARC/B A CAMPBELL
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1047 GEORGIA INSTITUTE OF TECHNOLOGY **4078**
TECHNOLOGY & RISK ASSESSMENT USING A ROBUST DESIGN SIMULATION METHODOLOGY
 05/17/1996 – 07/31/1998 FY98: \$20,537 Total: \$161,402
Prin. Invest.: D MAVRIS
Tech. Officer: ARC/T L GALLOWAY, ARC/P A GELHAUSEN
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1103 GEORGIA INSTITUTE OF TECHNOLOGY **4079**
MODELING & DATA ANALYSIS OF SONEX OBSERVATIONS
 01/13/1997 – 01/31/1999 FY98: \$104,493 Total: \$211,837
Prin. Invest.: S C LIU
Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 2 1146 GEORGIA INSTITUTE OF TECHNOLOGY **4080**
PILOT NON-CONFORMANCE TO ALERTING SYSTEM COMMANDS
 07/22/1997 – 12/31/1997 FY98: \$0 Total: \$21,656
Prin. Invest.: A R PRITCHETT
Tech. Officer: ARC/R W REMINGTON, ARC/K CORKER
CASE Category: 69 – PSYCHOLOGY, OTHER

NAG 2 1174 GEORGIA INSTITUTE OF TECHNOLOGY **4081**
INTELLIGENT FLIGHT PROPULSION & CONTROL SYSTEM FOR ENHANCE FLIGHT SAFETY
 02/06/1998 – 02/28/1999 FY98: \$99,289 Total: \$99,289
Prin. Invest.: A J CALISE
Tech. Officer: ARC/J TOTAH
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1178 GEORGIA INSTITUTE OF TECHNOLOGY **4082**
USE OF COCKPIT DISPLAY OF TRAFFIC INFORMATION FOR INCREASED PILOT INVOLVEMENT IN AIR TRAFFIC MGMT
 02/19/1998 – 10/31/1998 FY98: \$80,001 Total: \$80,001
Prin. Invest.: A R PRITCHETT
Tech. Officer: ARC/W W JOHNSON
CASE Category: 99 – MULTI INTERDISCIPL., OTHER

NAG 2 1262 GEORGIA INSTITUTE OF TECHNOLOGY **4083**
QUALITY-OF-SERVICE PROBLEMS OF REAL-TIME VBR TRAFFIC IN HYBRID NETWORKS
 09/03/1998 – 08/31/1999 FY98: \$132,745 Total: \$132,745
Prin. Invest.: I F AKYILDIZ
Tech. Officer: ARC/C M FALSETTI, ARC/B H WITHAKER
CASE Category: 22 – COMPUTER SCIENCE

NAG 3 1454 GEORGIA INSTITUTE OF TECHNOLOGY **4084**
CONTROL OF OSCILLATORY THERMOCAPILLARY CONVECTION IN MICROGRAVITY
 02/17/1993 – 02/15/1997 FY98: -\$123 Total: \$402,977
Prin. Invest.: G P NEITZEL
Tech. Officer: LERC/R L THOMPSON
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1455 GEORGIA INSTITUTE OF TECHNOLOGY **4085**
THE BEHAVIOR OF UNSTEADY THERMOCAPILLARY FLOWS
 02/08/1993 – 05/23/1997 FY98: -\$1,263 Total: \$208,736
Prin. Invest.: M K SMITH, M K SMITH
Tech. Officer: LERC/J P SKARDA
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1559 GEORGIA INSTITUTE OF TECHNOLOGY **4086**
DIELECTRIC SPECTROSCOPY AS A MATERIALS PROBE
 02/02/1994 – 02/02/1998 FY98: \$0 Total: \$225,000
Prin. Invest.: R A GERHARDT
Tech. Officer: LERC/A VARY
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 3 1610 GEORGIA INSTITUTE OF TECHNOLOGY **4087**
PREMIXED TURBULENT FLAME PROPAGATION IN MICROGRAVITY
 05/25/1994 - 05/24/1998 FY98: \$0 Total: \$448,952
Prin. Invest.: S MENON
Tech. Officer: LERC/H D ROSS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1665 GEORGIA INSTITUTE OF TECHNOLOGY **4088**
THERMOCHEMISTRY OF SCANDIUM ADSORBATE GENERATION
 09/12/1994 - 03/11/1998 FY98: \$11,200 Total: \$44,800
Prin. Invest.: D N HILL
Tech. Officer: LERC/E G WINTUCKY
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1682 GEORGIA INSTITUTE OF TECHNOLOGY **4089**
DEVELOPMENT OF QUIET PRESSURE REDUCING DEVICES AND NOISE SOURCE LOCATION TECHNIQUES
 11/17/1994 - 12/02/1997 FY98: \$0 Total: \$265,285
Prin. Invest.: K K ATIQUA
Tech. Officer: LERC/E A KREJSA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1754 GEORGIA INSTITUTE OF TECHNOLOGY **4090**
THREE-DIMENSIONAL AEROELASTIC ANALYSIS OF MISTUNE D BLENDED-DISK ASSEMBLIES
 05/31/1995 - 05/30/1997 FY98: -\$15,302 Total: \$57,801
Prin. Invest.: O G MCGEE
Tech. Officer: LERC/J LUCERO
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1894 GEORGIA INSTITUTE OF TECHNOLOGY **4091**
NON-COALESCENCE EFFECTS IN MICROGRAVITY
 06/17/1996 - 06/16/2000 FY98: \$120,000 Total: \$317,015
Prin. Invest.: G P NEITZEL
Tech. Officer: LERC/R S KARDA
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1949 GEORGIA INSTITUTE OF TECHNOLOGY **4092**
THE DEVELOPMENT OF NOVEL, HIGH-FLUX, HEAT TRANSFER CELLS FOR THERMAL CONTROL IN MICROGRAVITY
 09/17/1996 - 09/12/2000 FY98: \$120,000 Total: \$240,000
Prin. Invest.: M K SMITH, A GLEZER
Tech. Officer: LERC/B SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2006 GEORGIA INSTITUTE OF TECHNOLOGY **4093**
TERRESTRIAL EXPERIMENTS ON G-ITTER EFFECTS ON TRANSPORT & PATTERN FORMATION
 01/24/1997 - 07/16/2000 FY98: \$80,000 Total: \$132,327
Prin. Invest.: M F SCHATZ, H L SWINNEY
Tech. Officer: LERC/W DUVAL, LERC/T K GLASGOW
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2192 GEORGIA INSTITUTE OF TECHNOLOGY **4094**
PREMIXED TURBULENT FLAME PROPAGATION IN MICROGRAVITY
 08/19/1998 - 12/31/1998 FY98: \$48,343 Total: \$48,343
Prin. Invest.: S MENON
Tech. Officer: LERC/K R SACKSTEDER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 1490 GEORGIA INSTITUTE OF TECHNOLOGY **4095**
INVESTIGATION OF PASSIVE ATMOSPHERIC SOUNDING USING A MILLIMETER AND SUBMILLIMETER-WAVELENGTH CHANNEL
 12/10/1990 - 06/30/1998 FY98: \$0 Total: \$509,946
Prin. Invest.: A J PASIEWSKI
Tech. Officer: GSFC/R F ADLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2227 GEORGIA INSTITUTE OF TECHNOLOGY **4096**
INTELLIGENT COMMAND AND CONTROL SYSTEMS FOR SATELLITE GROUND OPERATIONS
 03/12/1993 - 03/31/1999 FY98: \$0 Total: \$267,245
Prin. Invest.: C M MITCHELL
Tech. Officer: GSFC/A W STOFFEL
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2789 GEORGIA INSTITUTE OF TECHNOLOGY **4097**
TOWARDS A THEORY OF TROPICAL/MIDLATITUDE MASS EXCHANGE FROM THE EARTH'S SURFACE THROUGH THE ...
 11/14/1994 - 11/30/1997 FY98: \$0 Total: \$211,657
Prin. Invest.: D E HARTLEY
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 11 - ATMOSPHERIC SCIENCE

NAG 5 2919 GEORGIA INSTITUTE OF TECHNOLOGY **4098**
POTENTIAL OF TROPICAL-BASED DIAGNOSIS OF SEASONAL AND INTRA-SEASONAL VARIABILITY IN AN ASSIMILATED...
 03/22/1995 - 03/31/1998 FY98: \$0 Total: \$165,104
Prin. Invest.: R X ELACK
Tech. Officer: GSFC/S SCHUBERT
CASE Category: 11 - ATMOSPHERIC SCIENCE

NAG 5 3149 GEORGIA INSTITUTE OF TECHNOLOGY **4099**
THE PREDICTION OF THE DYNAMICAL IMPACT OF CHANGES IN STRATOSPHERIC OZONE TRANSPORT MODEL STUDIES
 12/08/1995 - 12/14/1997 FY98: \$0 Total: \$126,000
Prin. Invest.: D M CUNNOLD
Tech. Officer: GSFC/A R DOUGLAS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3356 GEORGIA INSTITUTE OF TECHNOLOGY **4100**
AN INTELLIGENT CASE-BASED HELP DESK: WEB-BASED SUPPORT FOR EOSDIS CUSTOMERS
 08/12/1996 - 12/14/1998 FY98: \$0 Total: \$131,175
Prin. Invest.: C MITCHELL
Tech. Officer: GSFC/W TRUSZKOWSKI, GSFC/K MOE
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 3634 GEORGIA INSTITUTE OF TECHNOLOGY **4101**
LABORATORY INVESTIGATIONS OF STRATOSPHERIC AND UPPER ATMOSPHERIC CHEMISTRY
 02/25/1997 - 01/31/1999 FY98: \$159,360 Total: \$312,675
Prin. Invest.: P H WINE
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3855 GEORGIA INSTITUTE OF TECHNOLOGY **4102**
THE YANGYZE DELTA OF CHINA AS AN EVOLVING METRO-AG
(148-65-80-04)
 02/03/1997 - 11/30/1998 FY98: \$466,778 Total: \$966,778
Prin. Invest.: W L CHAMEIDES
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4190 GEORGIA INSTITUTE OF TECHNOLOGY **4103**
LABORATORY EVALUATION AND APPLICATION OF MICROWAVE UNDER
SIMULATED CONDITIONS FOR PLANETARY ATMOSPHE
 06/10/1997 - 12/31/1998 FY98: \$72,000 Total: \$144,000
Prin. Invest.: D G STEFFES
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6284 GEORGIA INSTITUTE OF TECHNOLOGY **4104**
DEVELOPMENT OF AIRBORNE EDDY-CORRELATION FLUX MEAS OXIDES
OF NITROGEN
 09/26/1997 - 10/31/1998 FY98: \$0 Total: \$149,805
Prin. Invest.: D SANDHOLM
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7450 GEORGIA INSTITUTE OF TECHNOLOGY **4105**
RELATIONSHIPS BETWEEN INTERSTELLAR AND INTERPLANETARY
GRAINS
 07/02/1998 - 06/30/2000 FY98: \$29,000 Total: \$29,000
Prin. Invest.: D P BRADLEY, NONE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7471 GEORGIA INSTITUTE OF TECHNOLOGY **4106**
POTENTIAL VORTICITY-BASED DIAGNOSES OF SEASONAL AND INTRA-
SEASONAL VARIABILITY IN AN ASSIMILATED
 06/08/1998 - 03/31/1999 FY98: \$52,400 Total: \$52,400
Prin. Invest.: R X BLACK
Tech. Officer: GSFC/S SCHUBERG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1138 GEORGIA INSTITUTE OF TECHNOLOGY **4107**
ADAPTIVE FULL APERTURE WAVEFRONT SENSOR STUDY
 03/31/1995 - 08/31/1997 FY98: -\$121 Total: \$99,844
Prin. Invest.: W G ROBINSON
Tech. Officer: MSFC/K K MONTGOMERY
CASE Category: 13 - PHYSICS

NAG 8 1245 GEORGIA INSTITUTE OF TECHNOLOGY **4108**
EFFECT OF GRAVITY ON THE EVOLUTION OF SPATIAL ARRANGEMENT OF
FEATURES IN MICROSTRUCTURES
 05/10/1996 - 05/09/2000 FY98: \$72,500 Total: \$211,250
Prin. Invest.: A M GOKHALE
Tech. Officer: MSFC/C R TALLEY, MSFC/R W ALLEN
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 8 1302 GEORGIA INSTITUTE OF TECHNOLOGY **4109**
RESEARCH "LAUNCH VEHICLE SYSTEMS ANALYSIS"
 07/11/1996 - 10/31/1998 FY98: \$82,258 Total: \$131,610
Prin. Invest.: D R OLDS
Tech. Officer: MSFC/U HUETER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 8 1547 GEORGIA INSTITUTE OF TECHNOLOGY **4110**
FUNDING FOR LAUNCH VEHICLE ASSESSMENT FOR SPACE SOLAR
POWER
 08/11/1998 - 12/15/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: J R OLDS
Tech. Officer: MSFC/J L HOWELL
CASE Category: 13 - PHYSICS

NAG 9 726 GEORGIA INSTITUTE OF TECHNOLOGY **4111**
OPTIMIZATION FUZZY ADAPTIVE CONTROL & INTELLIGENT AUTONOMOUS
SPACE
 05/11/1994 - 06/30/1998 FY98: \$0 Total: \$234,939
Prin. Invest.: A O ESOGBUE
Tech. Officer: JSC/J ATKINSON
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 9 927 GEORGIA INSTITUTE OF TECHNOLOGY **4112**
LOW-SPEED AERODYNAMICS OF ADVANCED CRERW RECOVER SYS
 03/03/1997 - 03/31/1998 FY98: \$0 Total: \$45,000
Prin. Invest.: N KOMERATH, R FUNK
Tech. Officer: JSC/J PARK
CASE Category: 41 - AERONAUTICAL ENGR

NAGW 2753 GEORGIA INSTITUTE OF TECHNOLOGY **4113**
ACOUSTIC CHARGE TRANSPORT IMAGER FOR HIGH DEFINITION TELEVI-
SION APPLICATIONS: PROOF OF CONCEPT DEMO
 09/27/1991 - 12/31/1998 FY98: \$0 Total: \$7,799,446
Prin. Invest.: W D HUNT
Tech. Officer: HQ/T BENTSEN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAGW 3886 GEORGIA INSTITUTE OF TECHNOLOGY **4114**
PARALLELIZATION AND VISUAL ANALYSIS OF DYNAMICAL/ CHEMICAL
ATMOSPHERIC MODELS
 03/09/1994 - 09/30/1997 FY98: \$0 Total: \$449,909
Prin. Invest.: K SCHWAN
Tech. Officer: HQ/G H MUCKLOW, HQ/J H BREDECAMP
CASE Category: 22 - COMPUTER SCIENCE

NAGW 4692 GEORGIA INSTITUTE OF TECHNOLOGY **4115**
THE MEASUREMENT OF SULFUR OXIDATION PRODUCTS & THE IR ROLE IN
HOMOGENEOUS NUCLEATION
 08/10/1995 - 06/30/1998 FY98: -\$164 Total: \$219,742
Prin. Invest.: F EISELE
Tech. Officer: HQ/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 5176 GEORGIA INSTITUTE OF TECHNOLOGY **4116**
COMPARISON OF INTERPLANETARY AND INTERSTELLAR DUST
 10/25/1996 - 03/31/1998 FY98: \$0 Total: \$14,000
Prin. Invest.: J P BRADLEY
Tech. Officer: HQ/P ROGERS, HQ/H C BRINTON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 1 18938 GEORGIA INSTITUTE OF TECHNOLOGY **4117**
SAGE III EXPERIMENT SCIENTIFIC SUPPORT/CUNNOLD
 02/20/1990 - 01/31/2005 FY98: \$55,000 Total: \$439,700
Prin. Invest.: D M CUNNOLD
Tech. Officer: LARC/G L MADDREA/L R MCMASTER
CASE Category: 31 - ATMOSPHERIC SCIENCE

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| <p>NAS 3 27361 GEORGIA INSTITUTE OF TECHNOLOGY 4118 RF PROPAGATION EFFECTS 08/10/1994 – 09/30/1998 FY98: \$0 Total: \$129,834 Prin. Invest.: D HOWARD, P STEFFES Tech. Officer: LERC/R BAUER CASE Category: 99 – MULTI INTERDISCIPL, OTHER</p> | <p>NCC 2 961 GEORGIA INSTITUTE OF TECHNOLOGY 4126 MODELING, TRAINING, AND AIDING IN AEROSPACE SYSTEMS 07/18/1996 – 11/30/1998 FY98: \$105,827 Total: \$411,139 Prin. Invest.: C N MITCHELL Tech. Officer: AFC/E A PALMER, ARC/K CORKER CASE Category: 41 – AERONAUTICAL ENGR</p> |
| <p>NCC 1 229 GEORGIA INSTITUTE OF TECHNOLOGY 4119 IMPROVING CONCEPTUAL DESIGN FOR LAUNCH VEHICLES 06/10/1996 – 09/22/1998 FY98: \$48,972 Total: \$96,215 Prin. Invest.: J R OLDS Tech. Officer: LARC/R A LEPSCH, LARC/C H ELDRED CASE Category: 42 – ASTRONAUTICAL ENGR</p> | <p>NCC 2 981 GEORGIA INSTITUTE OF TECHNOLOGY 4127 NONLINEAR FLIGHT CONTROL FOR TILT ROTOR AIRCRAFT OPERATING IN THE TERMINAL AREA 03/17/1997 – 08/31/1999 FY98: \$23,264 Total: \$84,374 Prin. Invest.: A J CALISE Tech. Officer: ARC/R T N. CHEN CASE Category: 41 – AERONAUTICAL ENGR</p> |
| <p>NCC 1 296 GEORGIA INSTITUTE OF TECHNOLOGY 4120 MEASUREMENTS OF NO AND NO2 OVER THE TROPICAL PACIFIC 04/28/1998 – 05/31/1999 FY98: \$296,000 Total: \$296,000 Prin. Invest.: S T SANDHOLM Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA CASE Category: 31 – ATMOSPHERIC SCIENCE</p> | <p>NCC 3 592 GEORGIA INSTITUTE OF TECHNOLOGY 4128 APPLICATION OF THE GA TECH GENERIC IPPD METHODOLOGY TO SUPPORT IMPLEMENTATION OF THE NASA/INDUSTRY 12/30/1997 – 01/1/1999 FY98: \$121,866 Total: \$121,866 Prin. Invest.: D P SCHRAGE, D N MAVRIS Tech. Officer: LERC/C L MEYERS, LERC/R M PLENCNER CASE Category: 41 – AERONAUTICAL ENGR</p> |
| <p>NCC 1 301 GEORGIA INSTITUTE OF TECHNOLOGY 4121 MEASUREMENT OF OH, H2SO4, MSA, NH3, AND DMSO ABOARD THE P-3B AIRCRAFT 05/27/1998 – 05/31/2001 FY98: \$316,803 Total: \$316,803 Prin. Invest.: F L EISELE, R L MAULDIN Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA CASE Category: 31 – ATMOSPHERIC SCIENCE</p> | <p>NCC 8 108 GEORGIA INSTITUTE OF TECHNOLOGY 4129 HIGHLY REUSABLE SPACE TRANSPORTATION SYSTEM CONCEPT EVALUATION 06/06/1996 – 05/1/1998 FY98: \$0 Total: \$55,250 Prin. Invest.: J R OLDS Tech. Officer: GS/C/J T HOWELL CASE Category: 41 – AERONAUTICAL ENGR</p> |
| <p>NCC 1 306 GEORGIA INSTITUTE OF TECHNOLOGY 4122 TROPOSPHERIC DIAGNOSTIC MODELING STUDIES OF PEM- TROPICS B FIELD DATA: INVESTIGATION OF THE 07/10/1998 – 04/30/2002 FY98: \$61,287 Total: \$61,287 Prin. Invest.: D D DAVIS, G CHEN Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA CASE Category: 31 – ATMOSPHERIC SCIENCE</p> | <p>NGT 30345 GEORGIA INSTITUTE OF TECHNOLOGY 4130 GLOBAL CHANGE FELLOWSHIP AWARD 09/13/1995 – 08/31/1997 FY98: \$0 Total: \$44,000 Prin. Invest.: P H VINE Tech. Officer: HQ/R A SCHIFFER, HQ/G ASRAR CASE Category: 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NCC 1 317 GEORGIA INSTITUTE OF TECHNOLOGY 4123 MODELING AND DATA ANALYSIS OF PEM-TROPICS B OBSERVATIONS 08/17/1998 – 07/31/2001 FY98: \$166,973 Total: \$166,973 Prin. Invest.: S C LIU Tech. Officer: LARC/J M HOELL, LARC/R J BENDURA CASE Category: 31 – ATMOSPHERIC SCIENCE</p> | <p>NGT 40013 GEORGIA INSTITUTE OF TECHNOLOGY 4131 NATION SPACE GRANT AND FELLOWSHIP PROGRAM 09/29/1989 – 01/31/1997 FY98: \$0 Total: \$2,384,000 Prin. Invest.: D A PETERS Tech. Officer: HQ/T T SCHWARTZ CASE Category: 19 – MULTI INTERDISCIPL, OTHER</p> |
| <p>NCC 2 933 GEORGIA INSTITUTE OF TECHNOLOGY 4124 CULTURAL VARIABILITY IN CREW COMMUNICATION 09/12/1995 – 09/30/1998 FY98: \$0 Total: \$229,000 Prin. Invest.: K J KNOESPEL, U M FISCHER-LOSS Tech. Officer: ARC/J M ORASANU CASE Category: 62 – PSYCHOLOGY SOCIAL ASPECTS</p> | <p>NGT 51102 GEORGIA INSTITUTE OF TECHNOLOGY 4132 GRADUATE STUDENT RESEARCHERS PROGRAM 05/25/1993 – 09/31/1996 FY98: -\$10 Total: \$65,990 Prin. Invest.: KEMMER Tech. Officer: HQ/T T LYNCH CASE Category: 16 – MECHANICAL ENGR</p> |
| <p>NCC 2 945 GEORGIA INSTITUTE OF TECHNOLOGY 4125 ROTORCRAFT CENTERS OF EXCELLENCE 05/03/1996 – 12/31/1998 FY98: \$1,194,119 Total: \$3,579,530 Prin. Invest.: D C SCHRAGE, D A PETERS, K B BOTA Tech. Officer: ARC/Y H YU, ARC/J M DAVIS CASE Category: 41 – AERONAUTICAL ENGR</p> | <p>NGT 51115 GEORGIA INSTITUTE OF TECHNOLOGY 4133 GRADUATE STUDENT RESEARCHERS PROGRAM 07/23/1993 – 04/31/1997 FY98: \$0 Total: \$66,000 Prin. Invest.: K A CUNEFARE Tech. Officer: HQ/T T LYNCH CASE Category: 16 – MECHANICAL ENGR</p> |

NGT 51154 GEORGIA INSTITUTE OF TECHNOLOGY **4134**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/04/1993 – 09/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: K SCHWAN
Tech. Officer: HQ/D HOLLAND
CASE Category: 22 – COMPUTER SCIENCE

NGT 51346 GEORGIA INSTITUTE OF TECHNOLOGY **4135**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/22/1994 – 12/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: M K SMITH
Tech. Officer: HQ/G A LESANE
CASE Category: 46 – MECHANICAL ENGR

NGT 70315 GEORGIA INSTITUTE OF TECHNOLOGY **4136**
GRADUATE STUDENT RESEARCHERS (UMF) PROGRAM
 06/29/1993 – 09/30/1996 FY98: -\$1,957 Total: \$64,043
Prin. Invest.: W M HADDAD
Tech. Officer: HQ/D K RUSSELL
CASE Category: 41 – AERONAUTICAL ENGR

NGT 70383 GEORGIA INSTITUTE OF TECHNOLOGY **4137**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 09/29/1994 – 06/30/1997 FY98: \$0 Total: \$88,000
Prin. Invest.: M LIU, A S ABHIRAMAN
Tech. Officer: HQ/D K RUSSELL
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 70408 GEORGIA INSTITUTE OF TECHNOLOGY **4138**
UNDERREPRESENTED MINORITY AND DISABLED FOCUS GRADUATE STUDENT RESEARCHERS PROGRAM
 04/03/1995 – 07/31/1997 FY98: \$0 Total: \$30,596
Prin. Invest.: J LASKER
Tech. Officer: HQ/D K RUSSELL
CASE Category: 46 – MECHANICAL ENGR

NGT 1 52111 GEORGIA INSTITUTE OF TECHNOLOGY **4139**
GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 06/15/1995 – 12/31/1998 FY98: \$12,000 Total: \$66,000
Prin. Invest.: M R KIRBY, D N MARVRIS (ADVISOR)
Tech. Officer: LARC/P A GELHAUSEN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52132 GEORGIA INSTITUTE OF TECHNOLOGY **4140**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/06/1996 – 06/30/1999 FY98: \$22,000 Total: \$54,000
Prin. Invest.: A GLEZER, A GLEZER (ADVISOR)
Tech. Officer: LARC/R D JOSLIN
CASE Category: 46 – MECHANICAL ENGR

NGT 1 52143 GEORGIA INSTITUTE OF TECHNOLOGY **4141**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 07/03/1996 – 08/14/1999 FY98: \$22,000 Total: \$54,000
Prin. Invest.: S DONYLUK
Tech. Officer: LARC/I S RAJU, LARC/C C POE, JR.
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52149 GEORGIA INSTITUTE OF TECHNOLOGY **4142**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) TRANSFERRED FROM NASA HQ-NGT-51250
 07/30/1996 – 06/30/1997 FY98: -\$14,982 Total: \$7,019
Prin. Invest.: J I CRAIG
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52156 GEORGIA INSTITUTE OF TECHNOLOGY **4143**
NASA MDA FELLOWSHIP PROGRAM NASA MULTIDISCIPLINARY DESIGN AND ANALYSIS
 01/24/1997 – 11/30/1998 FY98: \$200,000 Total: \$400,000
Prin. Invest.: D P SCHRAGE
Tech. Officer: LARC/G L GILES
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52162 GEORGIA INSTITUTE OF TECHNOLOGY **4144**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/11/1997 – 06/30/1999 FY98: \$22,001 Total: \$44,001
Prin. Invest.: B V GIBBENS
Tech. Officer: LARC/J E GARDNER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52163 GEORGIA INSTITUTE OF TECHNOLOGY **4145**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/03/1997 – 09/02/1998 FY98: \$1 Total: \$22,001
Prin. Invest.: J R OLDS, D W WAY
Tech. Officer: LARC/R A LEPSCH, LARC/L R ROWELL
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52167 GEORGIA INSTITUTE OF TECHNOLOGY **4146**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 12/01/1997 – 11/30/1999 FY98: \$32,000 Total: \$32,000
Prin. Invest.: K A CUNEFARE
Tech. Officer: HQ/P BACON
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52170 GEORGIA INSTITUTE OF TECHNOLOGY **4147**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 04/15/1997 – 06/30/1999 FY98: \$22,001 Total: \$32,001
Prin. Invest.: F MISTREE
Tech. Officer: LARC/T A ZANG
CASE Category: 46 – MECHANICAL ENGR

NGT 3 52329 GEORGIA INSTITUTE OF TECHNOLOGY **4148**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/10/1997 – 09/14/2000 FY98: \$22,000 Total: \$44,000
Prin. Invest.: E W ZEGURA
Tech. Officer: LERC/F J MONTEGANI
CASE Category: 22 – COMPUTER SCIENCE

NGT 3 52334 GEORGIA INSTITUTE OF TECHNOLOGY **4149**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/11/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: G T ZHOU
Tech. Officer: LERC/F J MONTEGANI
CASE Category: 49 – ENGINEERING, OTHER

NGT 3 52338 GEORGIA INSTITUTE OF TECHNOLOGY **4150**
GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT
RESEARCHERS PROGRAM
 09/11/1997 – 08/03/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: M LIU
Tech. Officer: LERC/F J MONTEGANI
CASE Category: 49 – ENGINEERING, OTHER

NGT 4 52405 GEORGIA INSTITUTE OF TECHNOLOGY **4151**
GRADUATE STUDENT RESEARCHERS PROGRAM ROBUST LINEAR &
NONLINEAR CONTROL FOR JET ENGINE
 06/25/1997 – 07/01/1999 FY98: \$22,000 Total: \$43,860
Prin. Invest.: J CORRADO, W HADDAD
Tech. Officer: DFRG/K K GUPTA
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 31 GEORGIA INSTITUTE OF TECHNOLOGY **4152**
LOSSLESS IMAGE COMPRESSION USING ALPHABET CONSTRAINED FIL-
TER BANKS
 07/29/1996 – 07/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: M T SMITH
Tech. Officer: GSFC/G A SOFFEN, GSFC/J TILTON
CASE Category: 22 – COMPUTER SCIENCE

NGT 5 30069 GEORGIA INSTITUTE OF TECHNOLOGY **4153**
DEVELOPMENT OF A SELECT ION ATMOSPHERIC PRESSURE C S SPEC-
TROMETRY TECHNIQUE FOR THE MEASUREMENT OF T
 09/10/1997 – 08/31/1999 FY98: \$22,000 Total: \$43,950
Prin. Invest.: D WINE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30099 GEORGIA INSTITUTE OF TECHNOLOGY **4154**
THE LABORATORY INVESTIGATION OF THE DIMETHYL SULFIDE URBAN-
SKI
 09/15/1997 – 02/28/1999 FY98: \$0 Total: \$22,000
Prin. Invest.: P H WINE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 40023 GEORGIA INSTITUTE OF TECHNOLOGY **4155**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 02/03/1997 – 01/31/1999 FY98: \$454,752 Total: \$809,751
Prin. Invest.: E ARMANIOS
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 90026 GEORGIA INSTITUTE OF TECHNOLOGY **4156**
UNDERGRADUATE STUDENTS AWARDS FOR RESEARCH (USAR)
 02/03/1997 – 08/14/1997 FY98: \$0 Total: \$72,000
Prin. Invest.: L HOWARD
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 – ENGINEERING, OTHER

NGT 8 52830 GEORGIA INSTITUTE OF TECHNOLOGY **4157**
GRAD STUDENT RESEARCH PROGRAM FOR JULIE R. KOKAN
 09/20/1996 – 05/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: J R KOKAN
Tech. Officer: MSFC/D H SU
CASE Category: 49 – ENGINEERING, OTHER

NGT 8 52854 GEORGIA INSTITUTE OF TECHNOLOGY **4158**
DEVELOPMENT OF A TOOL FOR CONCEPTUAL DESIGN OF ROCKET
BASED COMBINED CYCLE PROPULSION SYSTEMS
 07/21/1998 – 08/14/2000 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J R OLDS
Tech. Officer: MSFC/J F DOWDY
CASE Category: 41 – AERONAUTICAL ENGR

NGT10 52602 GEORGIA INSTITUTE OF TECHNOLOGY **4159**
GRADUATE STUDENT RESEARCH PROGRAM
 06/20/1995 – 06/10/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: H LIPKIN
Tech. Officer: KS J R CAIMI
CASE Category: 46 – MECHANICAL ENGR

NGT10 52603 GEORGIA INSTITUTE OF TECHNOLOGY **4160**
A GRADUATE STUDENT RESEARCHERS PROGRAM
 06/06/1995 – 06/01/1997 FY98: -\$3,019 Total: \$37,581
Prin. Invest.: S M MURPHY
Tech. Officer: KS J J SAGER
CASE Category: 55 – AGRICULTURE

NAG 5 496 GEORGIA SOUTHERN COLLEGE **4161**
LABORATORY STUDIES OF SMALL CARBON GRANDULES
 02/01/1985 – 03/31/1998 FY98: \$0 Total: \$172,870
Prin. Invest.: R H NELSON
Tech. Officer: GSFC/B DONN, GSFC/J A NUTH
CASE Category: 12 – CHEMISTRY

NAG 9 913 GEORGIA SOUTHERN COLLEGE **4162**
PHYSICS OF INTERPLANETARY DUST COLLECTION WITH AEROGEL
 09/27/1996 – 03/30/1998 FY98: \$0 Total: \$15,000
Prin. Invest.: W W ANDERSON
Tech. Officer: JSC/F HORZ
CASE Category: 13 – PHYSICS

NAGW 5106 GEORGIA SOUTHERN COLLEGE **4163**
X-RAY DIFFRACTOMETER/FLUORESCENCE SPECTROMETER FOR PLAN-
ETARY LANDER:
 06/13/1996 – 05/31/1997 FY98: \$0 Total: \$44,985
Prin. Invest.: J R ANDERSON
Tech. Officer: HQ/T KOSTIUK, HQ/H C BRINTON
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 5 254 GEORGIA SOUTHERN COLLEGE **4164**
"PHYSICAL PROPERTIES OF PLANETARY MOLECULES", GSFC CONTROL
NUMBER 5-3326
 10/30/1997 – 10/31/2000 FY98: \$83,883 Total: \$83,883
Prin. Invest.: R NELSON
Tech. Officer: GSFC/J ALLEN
CASE Category: 2 – CHEMISTRY

NAG 5 4592 GEORGIA SOUTHWESTERN COLLEGE **4165**
X-RAY DIFFRACTOMETER/FLUORESCENCE SPECTROMETER FOR
 05/09/1997 – 05/31/1998 FY98: \$0 Total: \$60,000
Prin. Invest.: P W ANDERSON
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 2 438 GEORGIA STATE UNIVERSITY **4166**
SELECTION OF BEHAVIORAL TASKS AND DEVELOPMENT OF SWARE FOR
EVALUATION OF RHESUS MONKEY BEHAVIOR DURI
 03/01/1987 – 12/31/1998 FY98: \$0 Total: \$1,848,157
Prin. Invest.: D M RUMBAUGH, E S SAVAGE, W K RICHARDSON
Tech. Officer: ARC/P X CALLAHAN, ARC/C M WINGET
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 2979 GEORGIA STATE UNIVERSITY **4167**
IUE ATLAS OF RECONSTRUCTED SPECTRA OF HOT BINARY STARS
FORMATION AND GALAXY EVOL.
 07/10/1995 – 07/14/1997 FY98: \$0 Total: \$102,969
Prin. Invest.: D R GIES
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3098 GEORGIA STATE UNIVERSITY **4168**
INTRADAY VARIABILITY IN ACTIVE GALACTIC NUCLEI
 10/11/1995 – 04/14/1999 FY98: \$65,700 Total: \$197,100
Prin. Invest.: P J WILTA
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3587 GEORGIA STATE UNIVERSITY **4169**
STUDY OF THE CORRELATED MULTIWAVELENGTH VARIABILIT
 12/11/1996 – 12/14/1997 FY98: \$0 Total: \$1,000
Prin. Invest.: H MILLER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3667 GEORGIA STATE UNIVERSITY **4170**
A MULTIWAVELENGTH STUDY OF THE GAMMA-RAY BLAZAR PK
 12/31/1996 – 12/31/1998 FY98: \$0 Total: \$4,000
Prin. Invest.: H MILLER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 4091 GEORGIA STATE UNIVERSITY **4171**
ABSORPTION AND EMISSION OF EXCITED AND GROUND STATE AND
VISIBLE WAVELENGTH RANGES
 03/13/1997 – 12/31/1998 FY98: \$19,000 Total: \$50,000
Prin. Invest.: D T MANSON
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 4950 GEORGIA STATE UNIVERSITY **4172**
WAVELENGTH-TUNABLE NOVEL SEMICONDUCTOR FIR DETECTO
RESEARCH
 06/23/1997 – 06/14/1999 FY98: \$24,000 Total: \$88,000
Prin. Invest.: D PERERA
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 – ASTRONOMY

NAG 5 6904 GEORGIA STATE UNIVERSITY **4173**
CROSS-CORRELATION ANALYSIS OF UV PROFILE VARIATIONS AND
NONRADIAL PULSATIONS IN BESTARS
 02/06/1998 – 01/31/1999 FY98: \$29,700 Total: \$29,700
Prin. Invest.: D GIES
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6929 GEORGIA STATE UNIVERSITY **4174**
ORFEUS EDUCATIONAL OUTREACH PROGRAM
 01/29/1998 – 01/31/1999 FY98: \$10,047 Total: \$10,047
Prin. Invest.: H MILLER
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 – ASTRONOMY

NAG 5 7120 GEORGIA STATE UNIVERSITY **4175**
X-RAY/OPTICAL MONITORING OF AKN 120
 04/13/1998 – 04/14/1999 FY98: \$10,875 Total: \$10,875
Prin. Invest.: R MILLER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7324 GEORGIA STATE UNIVERSITY **4176**
A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 04/28/1998 – 04/30/1999 FY98: \$3,500 Total: \$3,500
Prin. Invest.: H MILLER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAGW 4280 GEORGIA STATE UNIVERSITY **4177**
ABSORPTION AND EMISSION OF EXCITED AND GROUND STATE ATOMS
AND IONS IN THE ULTRAVIOLET AND VISIBLE
 02/13/1995 – 04/30/1998 FY98: \$0 Total: \$62,000
Prin. Invest.: S T MANSON
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 – ASTRONOMY

NAGW 4397 GEORGIA STATE UNIVERSITY **4178**
MULTI-FREQUENCY MICROVARIABILITY STUDIES OF THE SEDS OF AGNS
 05/12/1995 – 09/30/1997 FY98: \$0 Total: \$192,705
Prin. Invest.: H R MILLER
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 – ASTRONOMY

NAG10 235 GEORGIA STATE UNIVERSITY **4179**
TEACH A SURVEY MATH/STATISTICAL COURSE & BASIC QUALITY CON-
TROL COURSE
 09/30/1997 – 09/30/1998 FY98: \$0 Total: \$47,901
Prin. Invest.: R PATTERSON
Tech. Officer: KSC/R TELLEY
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAG 8 1107 KENNESAW STATE COLLEGE **4180**
JOVE
 10/24/1994 – 05/31/1999 FY98: \$0 Total: \$36,000
Prin. Invest.: T LAROSA
Tech. Officer: MSFC/F SIX
CASE Category: 11 – ASTRONOMY

NAG 5 6602 MOREHOUSE COLLEGE **4181**
AN INFRARED STUDY OF ORTHO AND PARA HYDROGEN ON INTERSTEL-
LAR GRAINS
 11/13/1997 – 10/31/1998 FY98: \$221,667 Total: \$221,667
Prin. Invest.: J KING, JR.
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 – ASTRONOMY

NAG 8 1231 MOREHOUSE COLLEGE **4182**
R/S A NASA/UNIVERSITY JOINT VENTURE IN SPACE SCIENCE (JOVE), THIS
DOCUMENT 1ST YEAR FUNDING
 10/31/1996 – 05/31/1999 FY98: \$43,000 Total: \$100,000
Prin. Invest.: G WALKER, O H AKPAN
Tech. Officer: MSFC/E COTHRAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 8 1492 MOREHOUSE COLLEGE **4183**
INSPIRING CAREERS IN ENGINEERING, MATHEMATICS, AND SCIENCE
(ICEMS)
 06/04/1998 – 05/31/2001 FY98: \$99,137 Total: \$99,137
Prin. Invest.: E McDONALD
Tech. Officer: MSFC/A BEAM
CASE Category: 21 – MATHEMATICS

NAG 9 880 MOREHOUSE COLLEGE **4184**
INSPIRING CAREERS IN ENG/MATH/SCI
 11/01/1996 – 09/30/1997 FY98: \$0 Total: \$25,000
Prin. Invest.: B J MARTIN
Tech. Officer: JSC/J D ATKINSON
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAG 9 964 MOREHOUSE COLLEGE **4185**
SIMULATED MICROGRAVITY ...
 09/25/1997 – 12/30/1999 FY98: \$16,700 Total: \$116,700
Prin. Invest.: K DUTT
Tech. Officer: JSC/K KRISHEN
CASE Category: 56 – MEDICL

NGT 90025 MOREHOUSE COLLEGE **4186**
PROJECT SPACE STRATEGIC PREPAREDNESS ADVANCING CAREER
 03/08/1989 – 06/30/1997 FY98: \$0 Total: \$9,731,243
Prin. Invest.: W JACKSON, M W GREENE
Tech. Officer: HQ/Y FREEMAN/B PETERS
CASE Category: 49 – ENGINEERING, OTHER

NGT 5 90061 MOREHOUSE COLLEGE **4187**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 02/26/1997 – 08/14/1997 FY98: \$0 Total: \$24,000
Prin. Invest.: B MARTIN
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 21 – MATHEMATICS

NGT 8 52847 MOREHOUSE COLLEGE **4188**
STRATEGIC PREPAREDNESS ADVANCING CAREERS IN ENGINEERING/SCIENCE
 01/30/1998 – 12/31/1998 FY98: \$1,428,848 Total: \$1,428,848
Prin. Invest.: O CLAYTON
Tech. Officer: MSFC/W LOVE
CASE Category: 79 – SOCIAL SCIENCE, OTHER

NAG 2 1215 MOREHOUSE SCHOOL MED **4189**
PRE-METARSAL DIFFERENTIATION & MINERALIZATION
 05/04/1998 – 11/30/1998 FY98: \$20,055 Total: \$20,055
Prin. Invest.: B J KLEMENT
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 9 644 MOREHOUSE SCHOOL MED **4190**
CELLULAR RESPONSE TO HYPOGRAVITY & HYPERGRAVITY STRESS
 09/22/1992 – 05/18/1998 FY98: \$0 Total: \$486,000
Prin. Invest.: G I SANFORD
Tech. Officer: JSC/C SAMS
CASE Category: 56 – MEDICL

NAG 9 852 MOREHOUSE SCHOOL MED **4191**
ASSESSING THE PUTATIVE MECHANISMS OF GRAVITY INDUCED CELLULAR CHANGES
 09/28/1995 – 09/30/1998 FY98: \$73,923 Total: \$219,822
Prin. Invest.: G I SANFORD
Tech. Officer: JSC/D ATKINSON
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 9 954 MOREHOUSE SCHOOL MED **4192**
SUMMER SCIENCE INSTITUTE
 07/29/1997 – 07/01/1998 FY98: \$0 Total: \$49,335
Prin. Invest.: J L LIVERPOOL
Tech. Officer: JSC/J ATKINS
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 9 963 MOREHOUSE SCHOOL MED **4193**
GRAVITY-INDUCED CHANGES ON THE STERIDOGENESIS ...
 09/25/1997 – 09/30/1999 FY98: \$16,700 Total: \$116,666
Prin. Invest.: R BRIDARAN
Tech. Officer: JSC/K KRISHEN
CASE Category: 56 – MEDICL

NAG 9 971 MOREHOUSE SCHOOL MED **4194**
EFFECT OF MICRO GRAV ON DISPO & BIOTRANS OF THERAPEUTIC AGENTS ...
 09/25/1997 – 11/31/1999 FY98: \$31,400 Total: \$231,400
Prin. Invest.: D POTTER
Tech. Officer: JSC/L PUTCHA
CASE Category: 42 – ASTRONAUTICAL ENGR

NCC 2 936 MOREHOUSE SCHOOL MED **4195**
THE NEUROLOGIC EDUCATION PROGRAM IN THE DECADE OF THE BRAIN
 12/05/1995 – 01/30/1998 FY98: \$300,000 Total: \$1,298,505
Prin. Invest.: W W SULLIVAN
Tech. Officer: ARC/D R LISKOWSKY, ARC/K A SOUZA
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NCC 9 953 MOREHOUSE SCHOOL MED **4196**
DEVELOP MINORITY UNIV SPACE MEDICINE CENTER
 12/18/1997 – 03/30/1999 FY98: \$1,349,870 Total: \$1,349,870
Prin. Invest.: M THIERRY-PALMER
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 56 – MEDICL

NCCW 83 MOREHOUSE SCHOOL MED **4197**
DEVELOPMENT OF A MINORITY SPACE MEDICINE AND LIFE SCIENCE RESEARCH CENTER
 08/11/1995 – 03/30/2000 FY98: \$0 Total: \$2,780,098
Prin. Invest.: M L THIERRY-PALMER
Tech. Officer: HQ/B L WHITE
CASE Category: 56 – MEDICL

NASA'S UNIVERSITY PROGRAM

NGT 2 52239 MOREHOUSE SCHOOL MED **4198**
MINOTIRY COMPONENT FOR THE SPACE BIOLOGY RESEARCH ASSOCI-
ATES PROGRAM
 02/26/1998 - 12/31/1998 FY98: \$149,394 Total: \$149,394
Prin. Invest.: G L SANFORD
Tech. Officer: ARC/B LUNA, ARC/R A GRYMES
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1416 MORRIS BROWN COLLEGE **4199**
NASA PH.D. PROGRAM
 01/20/1998 - 12/31/1998 FY98: \$59,585 Total: \$59,585
Prin. Invest.: M RALPH
Tech. Officer: MSFC/A C BEAM, MSFC/W J LOVE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 250 SAVANNAH STATE UNIVERSITY **4200**
INSTITUTION SERVICES FOR STUDENTS WITH DISABILITY
 09/23/1998 - 09/22/1999 FY98: \$99,990 Total: \$99,990
Prin. Invest.: T EATON
Tech. Officer: KSC/R M C KINNEY
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 3 362 SAVANNAH STATE UNIVERSITY **4201**
ACTS FOR DISTANCE EDUCATION IN DEVELOPING COUNTRIES
 09/29/1994 - 09/28/1998 FY98: \$122,000 Total: \$693,750
Prin. Invest.: A KALU, G G VENTRE
Tech. Officer: LERC/M S PLECITY, LERC/R J SCHERTLER
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1974 SPELMAN COLLEGE **4202**
DEVELOPMENT OF SYNCHRONOUSLY SCANNED OPTICAL CARDS AS NEW
PROBE FOR HOSTILE ENVIRONMENTS
 10/11/1996 - 10/03/1999 FY98: \$49,658 Total: \$99,216
Prin. Invest.: P C CHEN
Tech. Officer: LERC/Y R HICKS
CASE Category: 12 - CHEMISTRY

NCC 5 237 SPELMAN COLLEGE **4203**
MODEL INSTITUTIONS FOR EXCELLENCE (MIE) PRICE OF THE TOTAL
AWARD FOR THIS PERIOD IS \$1,554,661.
 09/11/1997 - 06/30/1998 FY98: \$754,661 Total: \$1,554,661
Prin. Invest.: E FALCONER
Tech. Officer: GSFC/L RANDOLPH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 71 SPELMAN COLLEGE **4204**
POTENTIAL USE OF HALOGENATED TETRAPHENYLPORPHYRINS IN NON-
LINEAR OPTICAL MATERIALS
 04/06/1995 - 10/30/1998 FY98: \$0 Total: \$198,355
Prin. Invest.: B H CARDELINO, P C CHEN
Tech. Officer: MSFC/B G PENN, MSFC/W J LOVE
CASE Category: 12 - CHEMISTRY

NCC 8 144 SPELMAN COLLEGE **4205**
INTEGRATED APPROACH TO THE PREDICTION OF HYPER- POLARIZA-
BILITY OF ORGANIC CRYSTALS
 08/22/1997 - 08/31/1998 FY98: \$0 Total: \$144,833
Prin. Invest.: B CARDELINO, NONE
Tech. Officer: MSFC/C MOORE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCCW 78 SPELMAN COLLEGE **4206**
MODEL INSTITUTIONS FOR EXCELLENCE
 06/12/1995 - 06/30/1997 FY98: \$0 Total: \$3,250,263
Prin. Invest.: E FALCONER
Tech. Officer: HQ/D K RUSSELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90001 SPELMAN COLLEGE **4207**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 12/31/1996 - 08/14/1998 FY98: \$0 Total: \$229,800
Prin. Invest.: E FALCONER
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 21 - MATHEMATICS

NGT 5 90068 SPELMAN COLLEGE **4208**
WISE SCHOLARS PROGRAM
 04/04/1997 - 12/31/1997 FY98: \$0 Total: \$1,353,440
Prin. Invest.: D FALCONER
Tech. Officer: GSFC/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52846 SPELMAN COLLEGE **4209**
R/S WISE SCHOLARS DEGREE
 01/28/1998 - 12/31/1998 FY98: \$1,499,694 Total: \$1,499,694
Prin. Invest.: E FALCONER
Tech. Officer: MSFC/W LOVE
CASE Category: 79 - SOCIAL SCIENCE, OTHER

NAG 5 1610 UNIVERSITY OF GEORGIA **4210**
HIGH-RESOLUTION X-RAY OBSERVATIONS OF THE TRAPEZIU M CLUSTER
 10/15/1991 - 04/14/1998 FY98: \$0 Total: \$115,752
Prin. Invest.: J P CAILLAUD
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 3433 UNIVERSITY OF GEORGIA **4211**
THE RELATIONSHIP BETWEEN GAS AND DUST IN HI SHELLS
 10/01/1996 - 09/30/1998 FY98: \$0 Total: \$33,000
Prin. Invest.: L MAGNANI
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3618 UNIVERSITY OF GEORGIA **4212**
MODEL ATMOSPHERES OF NOVAE IN OUTBURST
 12/05/1996 - 09/30/1998 FY98: \$31,500 Total: \$61,600
Prin. Invest.: P H HAUSCHILD
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3619 UNIVERSITY OF GEORGIA **4213**
MULTIWAVELENGTH MODELING OF NOVA ATMOSPHERES
 12/06/1996 - 04/30/1999 FY98: \$79,700 Total: \$207,034
Prin. Invest.: P HAUSCHILD
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6322 UNIVERSITY OF GEORGIA **4214**
STABLE ISOTOPIC ANALYSIS OF SECONDARY MINERALS IN
 09/05/1997 - 07/31/1999 FY98: \$0 Total: \$45,000
Prin. Invest.: C ROMANEK
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6479 UNIVERSITY OF GEORGIA **4215**
ENHANCED REMOTE SENSING CAPABILITIES FOR INTEGRATED ASSES-
MENTS OF ENVIRONMENTAL CHANGE
 11/18/1997 - 09/30/1999 FY98: \$202,995 Total: \$202,995
Prin. Invest.: R A WELCH
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6769 UNIVERSITY OF GEORGIA **4216**
DETERMINING THE NATURE OF THETA-1 ORION'S X-RAY EMISSION
 01/21/1998 - 01/31/1999 FY98: \$16,600 Total: \$16,600
Prin. Invest.: J CAILLAUT
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6902 UNIVERSITY OF GEORGIA **4217**
DETERMINING THE AGES OF BETA PICTORIS STARS
 02/06/1998 - 01/31/1999 FY98: \$39,900 Total: \$39,900
Prin. Invest.: J CAILLAUT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAGW 4573 UNIVERSITY OF GEORGIA **4218**
ESTIMATION OF ABLATION RATES ON THE GREENLAND ICE SHEET FROM
MICROWAVE RADIOMETRIC OBSERVATIONS
 06/09/1995 - 09/30/1997 FY98: -\$5,144 Total: \$63,244
Prin. Invest.: T MOTE
Tech. Officer: HQ/R H THOMAS, HQ/M BALTUCK
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 8 97081 UNIVERSITY OF GEORGIA **4219**
LAND USE/COVER AND LAND SURFACE TEMPERATURE CHANGE MAP-
PING & NORMALIZED DIFFERENCE VEGETATION INDEX
 11/04/1996 - 11/03/1999 FY98: \$47,355 Total: \$158,755
Prin. Invest.: D P LO
Tech. Officer: MSFC/T MILLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30017 UNIVERSITY OF GEORGIA **4220**
MEASUREMENT OF IN SITU GROWTH RATES OF TWO IMPORTANT PRODUC-
ERS USING FLOW CYTOMETRY AND RNA-TARGETED
 10/23/1996 - 08/31/1998 FY98: \$22,000 Total: \$66,000
Prin. Invest.: B BINDER
Tech. Officer: GSFC/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

NAG 1 2039 VALDOSTA STATE UNIVERSITY **4222**
GIS LABORATORY FOR EDUCATION, RESEARCH, TRAINING, AND APPLICA-
TION OF GEOGRAPHIC INFORMATION SYSTEM
 03/30/1998 - 12/31/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: M INGHAM
Tech. Officer: LARC/W B BALL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3468 VALDOSTA STATE UNIVERSITY **4223**
ROTATIONAL EVOLUTION OF COOL STARS FROM THE ZAMS TO
 10/28/1996 - 10/31/1998 FY98: \$0 Total: \$79,000
Prin. Invest.: K L RUMSTAY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4289 VALDOSTA STATE UNIVERSITY **4224**
TESTING AN ALGAE-BASED AIR REGENERATION SYSTEM
 04/09/1997 - 12/31/1997 FY98: -\$56 Total: \$13,270
Prin. Invest.: J NIENOW
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1264 VALDOSTA STATE UNIVERSITY **4225**
"JOVE" RESEARCH
 01/17/1997 - 08/31/1999 FY98: \$30,000 Total: \$93,591
Prin. Invest.: M LIAKE, D BOGYO
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4897 VALDOSTA STATE UNIVERSITY **4226**
TESTING AN ALGAE-BASED AIR-REGENERATION SYSTEM
 02/05/1996 - 10/31/1997 FY98: \$0 Total: \$21,240
Prin. Invest.: J A NIENOW
Tech. Officer: HQ/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

HAWAII

NAG 1 1763 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4228**
AEROSOL SULFUR AND NITRIC ACID VAPOR CONCENTRATION IN THE
REMOTE PACIFIC TROPOSPHERE
 09/29/1995 - 12/31/1997 FY98: \$1 Total: \$157,953
Prin. Invest.: B J HUEBERT, B J HUEBERT
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1764 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4229**
AEROSOL PHYSICO-CHEMISTRY AND CYCLING IN THE TROPOSPHERE:
MEASUREMENTS FOR PEM-TROPICS
 09/29/1995 - 10/31/1998 FY98: \$52,000 Total: \$270,416
Prin. Invest.: D D CARKE
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1850 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4230**
STRESS RECOVERY AND ERROR ESTIMATION FOR 3-D SHELL STRUC-
TURES
 08/01/1996 - 07/31/1998 FY98: \$35,000 Total: \$107,246
Prin. Invest.: H R RIGGS
Tech. Officer: LARC/J M HOUSNER
CASE Category: 4 - AERONAUTICAL ENGINEERING

NAG 3 1912 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4231**
GAS-PHASE COMBUSTION SYNTHESIS OF METAL AND CERAMIC NANOPARTICLES
 07/09/1996 – 06/24/2000 FY98: \$12,835 Total: \$45,448
Prin. Invest.: B H CHAO
Tech. Officer: LERC/S GOKOGLU
CASE Category: 49 – ENGINEERING, OTHER

NAG 5 931 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4232**
LOW COMPLEXITY, HIGH-PERFORMANCE, BANDWIDTH EFFICIENT CODING AND CODED MODULATION TECHNIQUES...
 07/01/1987 – 02/28/1998 FY98: \$46,000 Total: \$677,471
Prin. Invest.: S LIN, NONE
Tech. Officer: GSFC/J C MORAKIS
CASE Category: 49 – ENGINEERING, OTHER

NAG 5 1880 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4233**
PSPC OBS. OF 12 EMSS UNIDENTIFIED SOURCES: VERY DISTANT CLUSTERS OF GALAXIES OR UNUSUAL X-RAY EMITTERS
 02/10/1992 – 02/14/1999 FY98: \$0 Total: \$75,562
Prin. Invest.: J P HENRY
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 2022 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4234**
THE ONSET OF CORONAL ACTIVITY
 07/15/1992 – 01/14/1998 FY98: \$0 Total: \$103,491
Prin. Invest.: T SIMON
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 2275 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4235**
EUVE OBSERVATIONS OF THE DME FLARE STAR AD LEO
 05/26/1993 – 11/30/1997 FY98: \$0 Total: \$80,000
Prin. Invest.: T SIMON
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 2486 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4236**
PARALLEL IMAGE COMPRESSION BY NEURAL NETWORKS
 02/04/1994 – 02/14/1998 FY98: \$0 Total: \$89,974
Prin. Invest.: D Y YUN
Tech. Officer: GSFC/J R FISCHER
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 2523 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4237**
X-RAY TEMPERATURE FOR A COMPLETE SAMPLE OF DISTANT CLUSTERS
 02/24/1994 – 03/14/1999 FY98: \$0 Total: \$92,232
Prin. Invest.: J P HENRY
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2663 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4238**
PARTICIPATION IN THE CONSOLIDATED INFRARED SPECTROMETER (CIRS) AS CO-INVESTIGATOR
 07/21/1994 – 07/31/1999 FY98: \$8,237 Total: \$30,669
Prin. Invest.: T OWEN
Tech. Officer: GSFC/V KUNDE
CASE Category: 11 – ASTRONOMY

NAG 5 2695 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4239**
NASA DIGITAL IMAGE DATA DISTRIBUTION FOR EDUCATION PUBLIC ACCESS AND TOURISM IN HAWAII: A MODEL SYSTEM
 08/17/1994 – 08/31/1999 FY98: \$0 Total: \$851,210
Prin. Invest.: P J MOUGINIS-MARK
Tech. Officer: GSFC/F HASLER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 2836 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4240**
DYNAMICS OF GAS IN GROUPS OF GALAXIES
 12/12/1994 – 12/14/1997 FY98: \$0 Total: \$26,000
Prin. Invest.: J E BARNES
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3000 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4241**
ANALYSIS OF DIGITAL TOPOGRAPHY OF VOLCANOES
 07/18/1995 – 07/31/1999 FY98: \$0 Total: \$341,226
Prin. Invest.: P J MOUGINIS-MARK
Tech. Officer: GSFC/H F FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3370 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4242**
TWO EXTREMELY RED GALAXIES
 09/06/1996 – 08/14/1998 FY98: \$294,500 Total: \$578,500
Prin. Invest.: R D JOSEPH
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3388 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4243**
COORDINATED OBSERVATIONS OF AD LEO: TESTING THE FLARE MODEL
 09/05/1996 – 03/14/1999 FY98: \$0 Total: \$26,797
Prin. Invest.: T SIMON, NONE
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3451 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4244**
ANALYSIS OF VOLCANIC ERUPTIONS AND FIRES USING LANDSAT 7
 10/07/1996 – 10/31/1998 FY98: \$63,600 Total: \$127,815
Prin. Invest.: D FLYNN
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3625 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4245**
SPECTRAL STUDIES OF POSSIBLE ASTEROIDAL MATERIALS
 02/12/1997 – 10/31/1999 FY98: \$60,600 Total: \$119,100
Prin. Invest.: J F BELL
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3635 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4246**
REMOTE SENSING AND GEOLOGIC STUDIES OF PLANETARY C
 02/12/1997 – 10/31/1998 FY98: \$70,400 Total: \$140,400
Prin. Invest.: B R HAWKE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3731 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4247**
ADAPTIVE OPTICS IMAGING OF SOLAR SYSTEM OBJECTS
 03/03/1997 – 12/31/1998 FY98: \$66,000 Total: \$132,000
Prin. Invest.: D J RODDIER
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 – ASTRONOMY

NAG 5 3766 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4248**
MINERALOGICAL MAPPING OF THE MOON
 02/20/1997 – 09/30/1998 FY98: \$55,000 Total: \$90,000
Prin. Invest.: P G LUCEY
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3782 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4249**
SHARING DISCOVERIES IN PLANETARY GEOSCIENCE ON THE ROM
 02/25/1997 – 11/30/1998 FY98: \$64,000 Total: \$127,340
Prin. Invest.: G TAYLOR
Tech. Officer: GSFC/J BOYCE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 3875 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4250**
REGIONAL PLANETARY IMAGE CENTER
 02/10/1997 – 11/14/2000 FY98: \$50,000 Total: \$100,000
Prin. Invest.: E R HAWKE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4127 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4251**
GEOMORPHOLOGY OF VOLCANOES ON MARS AND IO
 03/24/1997 – 10/31/1998 FY98: \$20,000 Total: \$140,000
Prin. Invest.: P MOUGINIS-MARK
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4150 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4252**
VOLATILE EVOLUTION
 04/02/1997 – 10/31/1998 FY98: \$100,000 Total: \$240,000
Prin. Invest.: F P FANALE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4212 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4253**
ORIGIN OF METEORITE PARENT BODIES AND THE MOON
 03/19/1997 – 11/30/1998 FY98: \$323,000 Total: \$646,000
Prin. Invest.: D KEIL
Tech. Officer: GSFC/J BOYCE
CASE Category: 12 – CHEMISTRY

NAG 5 4257 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4254**
MAPPING HAZARDOUS VOLCANOES WITH RADARSAT AND OTHER
 04/10/1997 – 02/28/1999 FY98: \$18,000 Total: \$35,000
Prin. Invest.: P MOUGINIS-MARK
Tech. Officer: GSFC/R H THOMAS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4395 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4255**
A GLOBAL ASSESSMENT OF ACTIVE VOLCANISM, VOLCANIC INPUTS TO THE ATMOSPHERE FROM THE EARTH OBSERVING
 05/06/1997 – 12/31/1998 FY98: \$346,000 Total: \$701,000
Prin. Invest.: P J MOUGINIS-MARK
Tech. Officer: GSFC/M BALTUCK
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 4495 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4256**
DISTANT COMETS IN THE EARLY SOLAR SYSTEM
 05/06/1997 – 03/31/1999 FY98: \$54,337 Total: \$122,191
Prin. Invest.: D J HEECH
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 – ASTRONOMY

NAG 5 4524 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4257**
OBSERVATIONS OF PLANET-CROSSING ASTEROIDS
 05/28/1997 – 02/23/2001 FY98: \$81,394 Total: \$101,394
Prin. Invest.: D J THOLEN
Tech. Officer: GSFC/W HUEBNER
CASE Category: 1 – ASTRONOMY

NAG 5 4669 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4258**
THE SOLAR SYSTEM BEYOND NEPTUNE
 06/17/1997 – 12/31/1998 FY98: \$45,000 Total: \$99,495
Prin. Invest.: D C JEWITT
Tech. Officer: GSFC/D NAVA
CASE Category: 1 – ASTRONOMY

NAG 5 4941 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4259**
OBSERVATIONAL INVESTIGATION OF THE SOLAR INTERIOR
 06/23/1997 – 05/31/1999 FY98: \$104,167 Total: \$354,167
Prin. Invest.: B J LABONTE
Tech. Officer: GSFC/W WIGNER
CASE Category: 13 – PHYSICS

NAG 5 6220 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4260**
OPEN ACCESS TO VECTOR MAGNETOGRAMS FROM SOHO SOLAR
 08/18/1997 – 07/31/1998 FY98: \$0 Total: \$10,800
Prin. Invest.: B J LABONTE
Tech. Officer: GSFC/J WILLETT
CASE Category: 11 – ASTRONOMY

NAG 5 6336 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4261**
A COMPARATIVE STUDY OF X-RAY & LENSING MASS DETERMINATIONS FOR THE MOST X-RAY LUMINOUS CLUSTERS IN
 10/02/1997 – 09/14/1999 FY98: \$17,800 Total: \$17,800
Prin. Invest.: H EBELING
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 6340 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4262**
AIRCRAFT RADIATION & AEROSOL MEASUREMENTS NEAR HAWAII: SATELLITE VALIDATION AT THE HOBY BUOY & THE HOT SPOT
 10/02/1997 – 09/30/1999 FY98: \$428,249 Total: \$428,249
Prin. Invest.: J H PORTER
Tech. Officer: GSFC/D O STARR
CASE Category: 13 – PHYSICAL SCIENCE, OTHER

NASA'S UNIVERSITY PROGRAM

NAG 5 6430 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4263**
ATMOSPHERIC DELAY CORRECTIONS FOR RADAR INTERFEROM ETRY:
DEVELOPMENT & TESTING OF A GPS-BASED APPROA
 10/09/1997 – 07/31/1999 FY98: \$120,000 Total: \$120,000
Prin. Invest.: M BEVIS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTIINTERDISCIPL, OTHER

NAG 5 6433 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4264**
A SYSTEM FOR ACQUISITION DISEMINATION OF EARTH SCI ENCE DATA
VIA THEINTERNET
 10/17/1997 – 04/14/1999 FY98: \$545,203 Total: \$545,203
Prin. Invest.: T NEILSEN
Tech. Officer: GSFC/J DODGE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6442 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4265**
UNDERSTANDING SEASONAL-TO-INTERANNUAL FLUCTUATIONS OF THE
NORTH PACIFIC SUBTROPICAL GYRE THROUGH MO
 11/13/1997 – 06/30/1999 FY98: \$127,220 Total: \$127,220
Prin. Invest.: B QIU
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6501 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4266**
OPTICAL STUDIES OF ACTIVE COMETS
 11/18/1997 – 02/28/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: D JEWITT
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 – ASTRONOMY

NAG 5 6561 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4267**
SPECTROSCOPIC OBSERVATIONS OF THE PLANETS
 12/09/1997 – 06/30/1998 FY98: \$53,000 Total: \$53,000
Prin. Invest.: D OWEN
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 – ASTRONOMY

NAG 5 6673 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4268**
CENTER FOR THE STUDY OF WATER VAPOR FIELDS AND THE IR RADIA-
TIVE EFFECTS OVER HAWAII-SATELLITE, AND
 12/16/1997 – 10/31/1999 FY98: \$310,000 Total: \$310,000
Prin. Invest.: S SHARMA
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6695 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4269**
LOW TEMPERATURE CORONAE OF A-TYPE STARS
 12/04/1997 – 11/30/1998 FY98: \$20,000 Total: \$20,000
Prin. Invest.: T P SIMON
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 – ASTRONOMY

NAG 5 6753 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4270**
A MG II SPECTRAL ATLAS AND FLUX CATALOG FOR LATE- TYPE STARS
IN THEHYADES CLUSTER
 01/12/1998 – 01/14/1999 FY98: \$45,066 Total: \$45,066
Prin. Invest.: T SIMON
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6759 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4271**
FACILITIES SUPPORT FOR PLANETARY GEOSCIENCES
 12/24/1997 – 12/14/1998 FY98: \$90,000 Total: \$90,000
Prin. Invest.: P LUCEY
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 6829 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4272**
OUTER SOLAR SYSTEM NOMENCLATURE
 01/15/1998 – 01/14/1999 FY98: \$5,000 Total: \$5,000
Prin. Invest.: T OWEN
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 6950 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4273**
APPLICATIONS OF SYNTHETIC APERTURE RADARS TO URBAN CLI-
MATOLOGY
 02/18/1998 – 01/31/1999 FY98: \$59,995 Total: \$59,995
Prin. Invest.: B DOUSSET
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7038 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4274**
WEAK LENSING FROM SPACE – ATP
 02/24/1998 – 03/31/1999 FY98: \$83,264 Total: \$83,264
Prin. Invest.: N KAISER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7056 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4275**
SUBMILLIMETER STUDIES OF COMETS
 02/27/1998 – 02/28/2001 FY98: \$35,000 Total: \$35,000
Prin. Invest.: D JEWITT
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 – ASTRONOMY

NAG 5 7087 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4276**
A MULTI-SENSOR STUDY OF CONVERGENT FRONTS IN THE N ORTH
PACIFIC
 02/23/1998 – 12/31/1998 FY98: \$46,979 Total: \$46,979
Prin. Invest.: P J FLAMENT
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7139 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4277**
REMOTE RAMAN ANALYSIS FOR PLANETARY LANDERS
 03/04/1998 – 03/31/2001 FY98: \$86,006 Total: \$86,006
Prin. Invest.: S K SHARMA
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 11 – ASTRONOMY

NAG 5 7156 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4278**
TRAVEL SUPPORT FOR GCTE-LUCC OPEN SCIENCE CONFERENCE
 04/15/1998 – 01/31/1999 FY98: \$33,880 Total: \$33,880
Prin. Invest.: D C JEWITT
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 – ASTRONOMY

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| NAG 5 7171 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4279 CONTROLS ON THE VARIABILITY OF PHYTOPLANKTON BIOMASS AND PRODUCTIVITY IN THE NORTH PACIFIC CENTRAL 04/03/1998 - 03/31/2000 FY98: \$115,602 Total: \$115,602 Prin. Invest.: R R BIDIGARE Tech. Officer: GSFC/J CAMPBELL CASE Category: 11 - ASTRONOMY | NAGW 437 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4287 ANAL OF MARIAN SURF MATERIALS USING RADAR THEMATA & COLOR DATA & GEOL EVOL OF THE HEAVILY CRATERED 05/05/1986 - 10/31/1997 FY98: \$0 Total: \$1,263,775 Prin. Invest.: P N MARK Tech. Officer: HQ/J R UNDERWOOD, HQ/J M BOYCE CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 5 7383 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4280 "ARCHITECTURE AND IMPLEMENTATION CONSIDERATION OF A HIGH-SPEED VIBERBI DECODER FOR REED-MULLER SUBC 05/12/1998 - 05/14/1999 FY98: \$99,000 Total: \$99,000 Prin. Invest.: S LIN Tech. Officer: GSFC/W H MILLER CASE Category: 45 - ELECTRICAL ENGR | NAGW 712 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4288 SPECTRAL STUDIES OF POSSIBLE ASTEROID MATERIALS 05/05/1986 - 09/30/1997 FY98: -\$85 Total: \$433,515 Prin. Invest.: J F BELL Tech. Officer: HQ/J R UNDERWOOD JR, HQ/J M BOYCE CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 5 7485 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4281 TO ESTABLISH SUPPORT FOR AN INTERNATIONAL PACIFIC RESEARCH CENTER (IPRC) AT THE UNIV. SCHOOL OF OCEA 06/03/1998 - 04/30/1999 FY98: \$1,000,000 Total: \$1,000,000 Prin. Invest.: L MAGAARD Tech. Officer: GSFC/R G KIRK CASE Category: 33 - OCEANOGRAPHY | NAGW 802 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4289 INFRARED SPECTRAL STUDIES OF ASTEROIDS 05/05/1986 - 12/31/1997 FY98: \$0 Total: \$449,405 Prin. Invest.: W J BELL Tech. Officer: HQ/H C BRINTON, HQ/J H RAHE CASE Category: 11 - ASTRONOMY |
| NAG 5 7513 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4282 HYPERSPECTRAL REMOTE SENSING OF CORAL REEFS IN A TROPICAL ESTUARY 07/28/1998 - 09/30/1999 FY98: \$96,859 Total: \$96,859 Prin. Invest.: M J ATKINSON Tech. Officer: GSFC/J W CAMPBELL CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAGW 1053 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4290 REGIONAL PLANETARY IMAGE CENTER 11/15/1986 - 09/30/1997 FY98: -\$801 Total: \$365,313 Prin. Invest.: B R HAWKE Tech. Officer: HQ/T A MAXWELL CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 5 7578 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4283 FUNDING FOR POST-ERUPTION HAZARDS AT MT. PINATUBO, PHILIPPINES (SENH98-0118) 08/04/1998 - 01/31/1999 FY98: \$97,500 Total: \$97,500 Prin. Invest.: P J MOUGINIS-MARK Tech. Officer: GSFC/H V FREY CASE Category: 32 - GEOLOGICAL SCIENCE | NAGW 1162 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4291 TESTING A MODEL FOR THE MORPHOLOGICAL EVOLUTION OF VOLCANOES 09/09/1987 - 09/30/1997 FY98: -\$1 Total: \$676,945 Prin. Invest.: P J MARK Tech. Officer: HQ/M BALTUCK, HQ/R E MURPHY CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 5 7730 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4284 INTERACTIVE TEACHING USING LANDSAT 5 AND LANDSAT 7 DATA 09/29/1998 - 09/30/1999 FY98: \$29,900 Total: \$29,900 Prin. Invest.: L P FLYNN Tech. Officer: GSFC/M KHAZENIE CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAGW 1421 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4292 MINERALOGICAL MAPPING OF THE LUNAR SURFACE 08/09/1988 - 09/30/1996 FY98: \$0 Total: \$277,828 Prin. Invest.: P G LUCEY Tech. Officer: HQ/T A MAXWELL CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 8 994 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4285 JOVE 01/25/1994 - 05/31/1999 FY98: \$0 Total: \$73,424 Prin. Invest.: W D HEACOX Tech. Officer: MSFC/F SIX CASE Category: 11 - ASTRONOMY | NAGW 1542 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4293 RESEARCH IN CORONAL AND CHROMOSPHERIC PHYSICS IN SUPPORT 12/09/1988 - 10/31/1997 FY98: \$0 Total: \$2,351,093 Prin. Invest.: R C CANFIELD Tech. Officer: HQ/J D BOHLIN, HQ/S KANE CASE Category: 11 - PHYSICS |
| NAGW 237 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4286 GEOLOGIC STUDIES OF PLANETARY VOLCANIC AND IMPACT PROCESS. 08/01/1986 - 09/30/1997 FY98: \$0 Total: \$915,915 Prin. Invest.: B R HAWKE, NONE Tech. Officer: HQ/J UNDERWOOD, HQ/J M BOYCE CASE Category: 32 - GEOLOGICAL SCIENCE | NAGW 2468 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4294 A GLOBAL ASSESSMENT OF ACTIVE VOLCANISM VOLCANIC HAZARDS, AND VOLCANIC INPUTS TO THE ATMOS. FROM EO 04/30/1991 - 06/30/1998 FY98: \$0 Total: \$1,713,000 Prin. Invest.: P MOUGINIS-MARK Tech. Officer: HQ/M BALTUCK, HQ/B J MALCOLM CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |

NAGW 2631 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4295**
LABORATORY INVESTIGATIONS OF VOLATILE TRAPPING IN COMETS
 09/04/1991 - 09/30/1997 FY98: \$0 Total: \$392,343
Prin. Invest.: T C OWEN
Tech. Officer: HQ/J D RUMMEL
CASE Category: 12 - CHEMISTRY

NAGW 2650 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4296**
NAGW-2650/UNIV HAWAII/SPECTROSCOPIC OBSERVATIONS OF THE PLANETS
 08/19/1991 - 09/30/1997 FY98: \$0 Total: \$281,272
Prin. Invest.: T OWEN
Tech. Officer: HQ/J RAHE
CASE Category: 11 - ASTRONOMY

NAGW 3044 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4297**
NAGW-3044/UNIV HAWAII/OBSERVATIONS OF SPACECRAFT TARGETS, UNUSUAL OBJECTS, & OTHER TARGETS
 04/24/1992 - 03/31/1998 FY98: \$0 Total: \$142,000
Prin. Invest.: D J THOLEN
Tech. Officer: HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NAGW 3099 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4298**
NAGW-3099/UNIV HAWAII/INSTRUMENTATION FOR ACHIEVING HIGH ANGULAR RESOLUTION ON THE NASA INFRARED
 06/17/1992 - 03/31/1998 FY98: \$0 Total: \$1,192,060
Prin. Invest.: B SMITH
Tech. Officer: HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NAGW 3218 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4299**
NAGW-3218/UNIV HAWAII/HIGH RESOLUTION STEREO CAMERA & OMEGA IMAGING SPECTROMETER INVESTIGATIONS
 11/02/1992 - 09/30/1997 FY98: -\$1,130 Total: \$181,870
Prin. Invest.: T B MCCORD
Tech. Officer: HQ/J M BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3281 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4300**
NAGW-3281/UNIV HAWAII/ORIGIN OF METEORITE PARENT BODIES AND THE MOON
 12/04/1992 - 09/30/1997 FY98: \$0 Total: \$1,254,340
Prin. Invest.: K KEIL
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3294 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4301**
NAGW-3294/UNIV HAWAII/VOLATILE EVOLUTION
 11/27/1992 - 09/30/1997 FY98: -\$240 Total: \$377,760
Prin. Invest.: F P FANALE
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3398 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4302**
A DEEP OPTICAL SURVEY OF THE ECLIPTIC
 03/09/1993 - 02/28/1997 FY98: -\$67 Total: \$112,433
Prin. Invest.: D JEWITT
Tech. Officer: HQ/J A NUTH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3493 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4303**
DEV. OF AN OPT. MOD. FOR EST. PRI. PRO. RAT. FROM SEA W. COL. IMA. AND AVHRR CLOUD CLIM.
 03/27/1993 - 02/28/1997 FY98: -\$141 Total: \$299,021
Prin. Invest.: R BIDIGARE
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 33 - OCEANOGRAPHY

NAGW 3721 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4304**
FORMATION AND HISTORY OF AEROSOLS IN TROPOSPHERIC AND STRATOSPHERIC VOLCANIC ERUPTION CLOUDS
 09/10/1993 - 07/31/1997 FY98: \$0 Total: \$272,849
Prin. Invest.: S SELF
Tech. Officer: HQ/M BALTUCK, HQ/E PAYLOR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 3766 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4305**
REMOTE MARINE AEROSOL: A CHARACTERIZATION OF PHYSICAL CHEMICAL AND OPTICAL PROPERTIES
 09/29/1993 - 09/30/1997 FY98: -\$161 Total: \$460,071
Prin. Invest.: A CLARKE
Tech. Officer: HQ/J T SUTTLES, HQ/A C JANETOS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 3875 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4306**
OPERATION OF THE UNIV OF HAWAII 2.2 METER TELESCOPE AT MAUNA KEA OBS
 02/17/1994 - 10/31/1996 FY98: \$0 Total: \$651,200
Prin. Invest.: D HALL
Tech. Officer: HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NAGW 3900 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4307**
SUBMILLIMETER IMAGING OF DUST AROUND MAIN SEQUENCE
 03/23/1994 - 03/31/1998 FY98: \$0 Total: \$105,000
Prin. Invest.: D JEWITT
Tech. Officer: HQ/J RAHE
CASE Category: 11 - ASTRONOMY

NAGW 3938 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4308**
NAGW-3938/B UNIV. OF HAWAII "JOINT US/JAPAN OBS. WITH THE INFRARED SPACE." 12-MONTH AWARD
 04/14/1994 - 01/14/1997 FY98: \$0 Total: \$255,000
Prin. Invest.: D B SANDERS
Tech. Officer: HQ/L J CAROFF
CASE Category: 11 - ASTRONOMY

NAGW 3973 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4309**
SUBMILLIMETER CONTINUUM OBSERVATIONS OF COMETS
 05/03/1994 - 02/28/1998 FY98: \$0 Total: \$118,400
Prin. Invest.: D JEWITT
Tech. Officer: HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NAGW 4190 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4310**
DEVELOPING A STAND ALONE SUN PHOTOMETER FOR USE ON SHIPS AND BUOYS
 10/31/1994 - 04/30/1997 FY98: \$0 Total: \$142,505
Prin. Invest.: J PORTER
Tech. Officer: HQ/A C JANETOS
CASE Category: 33 - OCEANOGRAPHY

NAGW 4601 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4311**
OPTICAL STUDIES OF ACTIVE COMETS
 08/11/1995 – 03/31/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: D JEWITT
Tech. Officer: HQ/E BARKER
CASE Category: 11 – ASTRONOMY

NAGW 4650 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4312**
HIGH ANGULAR RESOLUTION OBSERVATIONS OF PROTO PLANETARY DISKS WITH ADAPTIVE OPTICS
 08/02/1995 – 09/30/1997 FY98: \$0 Total: \$110,000
Prin. Invest.: F RODDIER
Tech. Officer: HQ/P ROGERS
CASE Category: 11 – ASTRONOMY

NAGW 4697 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4313**
ATMOSPHERIC DELAY CORRECTIONS FOR RADAR INTERFEROMETRY: DEVELOPMENT AND TESTING OF A GPS-BASED
 08/16/1995 – 02/28/1998 FY98: \$0 Total: \$280,000
Prin. Invest.: M BEVIS
Tech. Officer: HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4874 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4314**
THE COMPOSITION OF THE LUNAR CRUST
 11/30/1995 – 12/31/1997 FY98: \$0 Total: \$99,950
Prin. Invest.: P G LUCEY
Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
CASE Category: 13 – PHYSICS

NAGW 4886 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4315**
REMOTE SENSING STUDIES OF THE LUNAR CRUST
 01/01/1996 – 12/31/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: B R HAWKE
Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
CASE Category: 13 – PHYSICS

NAGW 4889 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4316**
SOLAR SYSTEM BEYOND NEPTUNE
 12/07/1995 – 12/31/1997 FY98: \$0 Total: \$54,495
Prin. Invest.: D JEWITT
Tech. Officer: HQ/P G ROGERS
CASE Category: 11 – ASTRONOMY

NAGW 4909 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4317**
CALIBRATION OF CLEMENTINE NEAR-INFRARED CAMERA
 02/05/1996 – 12/31/1996 FY98: \$0 Total: \$75,000
Prin. Invest.: P LUCEY
Tech. Officer: HQ/J BOYCE
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 4918 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4318**
KUIPER BELT OBJECTS ALONG THE PLUTO EXPRESS PATH
 02/06/1996 – 06/30/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: D C JEWITT
Tech. Officer: HQ/E BARKER, HQ/J RAHE
CASE Category: 13 – PHYSICS

NAGW 4933 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4319**
A MULTI-SENSOR STUDY OF CONVERGENT FRONTS IN THE NORTH PACIFIC
 02/13/1996 – 09/30/1997 FY98: \$0 Total: \$50,352
Prin. Invest.: P FLAMENT
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 33 – OCEANOGRAPHY

NAGW 4935 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4320**
ADAPTIVE OPTICS IMAGING OF SOLAR SYSTEM OBJECTS
 02/13/1996 – 12/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: F J RODDIER
Tech. Officer: HQ/E BARKER, HQ/J RAHE
CASE Category: 13 – PHYSICS

NAGW 4940 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4321**
APPLICATIONS OF SARS TO URBAN CLIMATOLOGY
 02/13/1996 – 09/30/1997 FY98: \$0 Total: \$58,362
Prin. Invest.: B M JOUSSETT
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 19 – ENVIRONMENTAL SCI, OTHER

NAGW 4955 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4322**
STUDIES OF THE PLUTO-CHARON SYSTEM
 03/20/1996 – 02/28/1998 FY98: \$0 Total: \$21,363
Prin. Invest.: D J T-HOLEN
Tech. Officer: HQ/I BAKER, HQ/J RAHE
CASE Category: 13 – PHYSICS

NAGW 4965 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4323**
MAPPING HAZARDOUS VOLCANOES WITH RADARSAT AND OTHER ORBITAL RADARS
 02/28/1996 – 09/30/1997 FY98: \$0 Total: \$16,000
Prin. Invest.: P MOJGINIS-MARK
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 5015 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4324**
DISTANT COMETS IN THE EARLY SOLAR SYSTEM
 03/22/1996 – 03/31/1997 FY98: \$0 Total: \$64,979
Prin. Invest.: K J MEECH
Tech. Officer: HQ/E BAKER, HQ/J RAHE
CASE Category: 11 – PHYSICS

NAGW 5250 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4325**
UNDERSTANDING SEASONAL-TO-INTERANNUAL FLUCTUATIONS OF THE NORTH PACIFIC SUBTROPICAL GYRE
 10/22/1996 – 12/30/1997 FY98: \$0 Total: \$147,007
Prin. Invest.: B QUI
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 31 – OCEANOGRAPHY

NAS 2 98077 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4326**
DEVELOPMENT OF ADVANCED NEAR INFRARED FOCAL PLANE TECHNOLOGY FOR ORIGINIS/NEXT GENERATION TELESCOPE
 08/04/1998 – 08/31/2001 FY98: \$290,000 Total: \$290,000
Prin. Invest.: D N HALL
Tech. Officer: ARCH W HODAPP
CASE Category: 11 – ASTRONOMY

NAS 5 30951 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4327**
INTERPRETATION OF GALILEO PROBE MASS SPECTROMETER DATA
 01/15/1991 - 04/30/1999 FY98: \$0 Total: \$280,168
Prin. Invest.: T C OWENS
Tech. Officer: GSFC/J R RICHARDS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 31722 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4328**
EOS INVESTIGATION "GLOBAL HYDROLOGIC PROCESSES & CLIMATE"
 10/08/1991 - 12/31/1997 FY98: \$0 Total: \$247,000
Prin. Invest.: R LUKAS
Tech. Officer: GSFC/W LAU
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 32354 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4329**
LASER RANGING OPERATIONS & MAINTENANCE
 03/03/1994 - 03/02/1999 FY98: \$735,000 Total: \$3,048,094
Prin. Invest.: D HALL
Tech. Officer: GSFC/J MCGARRY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 5 97136 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4330**
MEASUREMENTS OF AEROSOL, OCEAN & SKY PROPERTIES AT THE HOT SITE IN THE CENTRAL PACIFIC
 09/29/1997 - 09/28/1999 FY98: \$19,000 Total: \$181,699
Prin. Invest.: J PORTER
Tech. Officer: GSFC/C MCLAIN
CASE Category: 33 - OCEANOGRAPHY

NASW 5062 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4331**
OPERATION AND MAINTENANCE OF THE INFRARED TELESCOPE FACILITY
 01/31/1996 - 12/31/1998 FY98: \$3,300,000 Total: \$8,486,140
Prin. Invest.: D N HALL, R JOSEPH
Tech. Officer: HQ/E BARKER
CASE Category: 11 - ASTRONOMY

NCC 1 315 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4332**
SIZE RESOLVED AEROSOL NUCLEI AND PHYSICO-CHEMISTRY FOR PEM-TROPICS B ABOARD THE P-3B
 08/17/1998 - 08/31/2001 FY98: \$177,000 Total: \$177,000
Prin. Invest.: A D CLARKE, V KAPUSTIN
Tech. Officer: LARC/J M HOELL, LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5194 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4333**
PHOTON-DOMINATED CIRCUMSTELLAR GAS
 11/13/1996 - 12/31/1998 FY98: \$0 Total: \$12,000
Prin. Invest.: J L HORA
Tech. Officer: ARC/D HOLLENBACH
CASE Category: 11 - ASTRONOMY

NGT 30312 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4334**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/04/1995 - 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: F JIN
Tech. Officer: HQ/M BALTUCK, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 40020 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4335**
UNIV OF HAWAII/NAT'L SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 03/07/1990 - 01/31/1998 FY98: \$0 Total: \$2,154,000
Prin. Invest.: P MOUGINIS-MARK
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51286 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4336**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/28/1994 - 12/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: B J LABONTE
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 - ASTRONOMY

NGT 51645 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4337**
GRADUATE STUDENT RESEARCHERS PROGRAM
 10/18/1996 - 09/30/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: J BARNES
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 - ASTRONOMY

NGT 51652 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4338**
GRAD STUD RES PROG
 08/20/1996 - 09/30/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: K KEIL
Tech. Officer: HQ/D HOLLAND
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 5 30047 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4339**
THIRD YEAR FUNDING: "EL NINO-SOUTHERN OSCILLATION BY GLOBAL CLIMATE CHANGE" GSRP RECIPIENT: JEFF DRBO
 09/04/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: F JIN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40021 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4340**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.
 02/13/1997 - 01/31/1999 FY98: \$412,500 Total: \$742,500
Prin. Invest.: P MOUGINIS-MARK
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50017 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4341**
THE LINK BETWEEN INTERACTIONS, INFRARED EMISSION A OF GAL-AXIES: A DETAILED STUDY OF A COMPLETE SAMP
 07/14/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: J E BARMES
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50089 UNIVERSITY OF HAWAII AT MANOA - HONOLULU **4342**
GRADUATE STUDENT RESEARCHERS PROGRAM - STUDENT: J
 08/27/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D SANDERS
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50175 UNIVERSITY OF HAWAII AT MANOA – HONOLULU **4343**
A COMPLETE SAMPLE OF X-RAY SELECTED GALAXY CLUSTER S FROM
THE ROSAT NORTHECLIPTIC POLE SURVEY
 05/22/1998 – 06/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J HENRY/MULLIS
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 11 – ASTRONOMY

NAG 5 2938 UNIVERSITY OF HAWAII SYSTEM **4344**
ARCHITECTURE AND IMPLEMENTATION CONSIDERATIONS OF A HIGH-
SPEED VITERBI DECODER FOR A REED MULLER SUB
 05/10/1995 – 04/30/1999 FY98: \$0 Total: \$265,400
Prin. Invest.: S LIN, G UEHARA
Tech. Officer: GSFC/W H MILLER, GSFC/J C MORAKIS
CASE Category: 49 – ENGINEERING, OTHER

NAG 5 4024 UNIVERSITY OF HAWAII SYSTEM **4345**
APPLICATIONS OF SARS TO URBAN CLIMATOLOGY: ESTIMATE MOISTURE
AVAILABILITY FROM RADARSAT IMAGES OF THE
 03/17/1997 – 09/30/1998 FY98: \$0 Total: \$47,453
Prin. Invest.: B M DOUSSET
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4133 UNIVERSITY OF HAWAII SYSTEM **4346**
INFRARED SPECTRAL STUDIES OF ASTEROID
 03/13/1997 – 12/31/1998 FY98: \$0 Total: \$24,500
Prin. Invest.: D F BELL
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 – ASTRONOMY

NAG 5 4143 UNIVERSITY OF HAWAII SYSTEM **4347**
A MULTI-SENSOR STUDY OF CONVERGENT FRONTS IN THE N
 04/14/1997 – 09/30/1998 FY98: \$0 Total: \$42,189
Prin. Invest.: P FLAMENT
Tech. Officer: GSFC/R H THOMAS
CASE Category: 33 – OCEANOGRAPHY

NAG 5 4223 UNIVERSITY OF HAWAII SYSTEM **4348**
OBSERVATION AND ANALYSIS OF JOVIAN AND SATURNIAN S
 03/26/1997 – 03/14/1998 FY98: \$0 Total: \$18,000
Prin. Invest.: D J THOLEN
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 – ASTRONOMY

NAG 5 4227 UNIVERSITY OF HAWAII SYSTEM **4349**
HIGH ANGULAR RESOLUTION OBSERVATIONS OF PROTOPLANE ADAP-
TIVE OPTICS
 03/24/1997 – 04/30/1999 FY98: \$0 Total: \$55,000
Prin. Invest.: D J RODDIER
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4249 UNIVERSITY OF HAWAII SYSTEM **4350**
KUIPER BELT OBJECTS ALONG THE PLUTO-EXPRESS PATH
 03/24/1997 – 01/31/1999 FY98: \$0 Total: \$20,000
Prin. Invest.: D C JEWITT
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 – ASTRONOMY

NAG 5 4344 UNIVERSITY OF HAWAII SYSTEM **4351**
SPECTROPHOTOMETRIC STUDIES OF MARS USING THE HIGH- CAMERA
ON THE SOVIE⁺ MARS 96 MISSION
 04/17/1997 – 06/30/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: D B MCCORD
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4355 UNIVERSITY OF HAWAII SYSTEM **4352**
OPERATION OF THE UNIVERSITY OF HAWAII 2.2-M TELESC
 04/17/1997 – 02/28/1999 FY98: \$0 Total: \$110,000
Prin. Invest.: P HALL
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 – ASTRONOMY

NAG 5 4443 UNIVERSITY OF HAWAII SYSTEM **4353**
SUPPORT OF THE 60TH METEOROLOGICAL SOCIETY MEETING MAUI
HAWAII
 04/23/1997 – 12/1/1997 FY98: \$0 Total: \$21,000
Prin. Invest.: D KILIL
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4631 UNIVERSITY OF HAWAII SYSTEM **4354**
DK UMA, A STAR ON THE ASCENT
 05/21/1997 – 05/31/1999 FY98: \$0 Total: \$17,480
Prin. Invest.: T SIMON
Tech. Officer: GSFC/R JOLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 4828 UNIVERSITY OF HAWAII SYSTEM **4355**
X-RAY TEMPERATURES FOR A COMPLETE SAMPLE OF DISTAN
 06/20/1997 – 06/30/1999 FY98: \$0 Total: \$18,900
Prin. Invest.: J HEVRY
Tech. Officer: GSFC/N WHITE
CASE Category: 1 – ASTRONOMY

NAG 5 6168 UNIVERSITY OF HAWAII SYSTEM **4356**
IS THERE ONLY ONE STELLAR CORONAL ACTIVITY-AGE REL
 08/01/1997 – 07/31/1999 FY98: \$0 Total: \$4,600
Prin. Invest.: T SIMON
Tech. Officer: GSFC/R PETRE
CASE Category: 1 – ASTRONOMY

NAGW 4816 UNIVERSITY OF HAWAII SYSTEM **4357**
ANALYSIS OF MAUNA KEA IMAGING OF COMET P/SHOEMAKER-LEVY 9
 10/03/1995 – 07/31/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: D JEVITT
Tech. Officer: HQ/I BARKER
CASE Category: 11 – ASTRONOMY

NGT 51387 UNIVERSITY OF HAWAII SYSTEM **4358**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/15/1995 – 06/30/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: D B SANDERS
Tech. Officer: HQ/I HOLLAND
CASE Category: 11 – ASTRONOMY

NAG 5 6799 UNIV OF HAWAII WINDWARD COMM COLLEGE **4359**
ESTABLISHING A RS/GIS EDUCATIONAL TRAINING AND ENVIRONMENTAL
MONITORING CENTER IN HAWAII
 02/27/1998 – 02/28/1999 FY98: \$93,014 Total: \$93,014
Prin. Invest.: J E CIOTTI, NONE
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

IDAHO

NAG 5 6090 BOISE STATE UNIVERSITY **4360**
POSSIBLE IMPACT ORIGIN OF SOME TERRESTRIAL DIAMICT
 08/13/1997 – 07/14/1999 FY98: \$0 Total: \$41,691
Prin. Invest.: V OBERBECK
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 7537 BOISE STATE UNIVERSITY **4361**
INVESTIGATION OF PHYSICAL PROCESS DYNAMICS DURING COLD SEA-
SON FLOODING.
 06/18/1998 – 06/30/2001 FY98: \$109,909 Total: \$109,909
Prin. Invest.: P DAWSON, NONE
Tech. Officer: GSFC/E ENGMAN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 5067 BOISE STATE UNIVERSITY **4362**
POSSIBLE IMPACT ORIGIN OF SOME TERRESTRIAL DIAMICT ITES
 05/20/1996 – 04/30/1997 FY98: -\$82 Total: \$36,918
Prin. Invest.: V OBERBECK
Tech. Officer: HQ/M MEYER, HQ/P ROGERS
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 2 961 UNIVERSITY OF IDAHO – MOSCOW, IDAHO **4363**
GALILEO DOPPLER WIND EXPERIMENT
 02/06/1995 – 09/30/1997 FY98: \$0 Total: \$88,547
Prin. Invest.: D G ATKINSON
Tech. Officer: ARC/L E LASHER, ARC/R E YOUNG
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 4 156 UNIVERSITY OF IDAHO – MOSCOW, IDAHO **4364**
EAGLES IN SPACE PROGRAM EAGLES IN SPACE PROGRAM
 08/02/1998 – 07/31/1999 FY98: \$14,214 Total: \$14,214
Prin. Invest.: I BOND
Tech. Officer: DFRC/M MCCARTY, DFRC/L DUKE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 4747 UNIVERSITY OF IDAHO – MOSCOW, IDAHO **4365**
EARTH SYSTEM FIELD RESEARCH EXPERIENCE FOR UNDERGR
 06/18/1997 – 05/31/1999 FY98: \$77,072 Total: \$152,072
Prin. Invest.: M MILLER
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6516 UNIVERSITY OF IDAHO – MOSCOW, IDAHO **4366**
INLAND NORTHWEST REMOTE SENSING LABORATORY FOR BIO
REGIONAL ANALYSIS
 10/24/1997 – 09/30/1998 FY98: \$218,682 Total: \$218,682
Prin. Invest.: P GESSLER
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 2 862 UNIVERSITY OF IDAHO – MOSCOW, IDAHO **4367**
DEVELOPMENT OF SENSORY RECEPTORS IN SKELETAL MUSCLE
 06/21/1994 – 04/30/1999 FY98: \$0 Total: \$193,299
Prin. Invest.: M E DESANTIS
Tech. Officer: ARC/D A REIS-BUBENHEIM, ARC/C M WINGET
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NCC 2 914 UNIVERSITY OF IDAHO – MOSCOW, IDAHO **4368**
SPARK: STUDENT PROGRAM FOR AERONAUTICS RESOURCES FOR
KNOWLEDGE
 07/26/1995 – 06/14/1999 FY98: \$66,600 Total: \$306,766
Prin. Invest.: D H ATKINSON
Tech. Officer: ARC/M J LEON, ARC/W C LIKENS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 10003 UNIVERSITY OF IDAHO – MOSCOW, IDAHO **4369**
IDAHO STAR (STUDENT TEAMS FOR AEROSPACE RESEARCH)
 06/16/1993 – 03/31/1997 FY98: \$0 Total: \$82,500
Prin. Invest.: D H ATKINSON
Tech. Officer: HQ/D V GALLAWAY
CASE Category: 41 – AERONAUTICAL ENGR

NGT 40038 UNIVERSITY OF IDAHO – MOSCOW, IDAHO **4370**
UNIV IDAHO/NAT'L SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 05/29/1991 – 02/28/1998 FY98: \$0 Total: \$1,219,838
Prin. Invest.: T ARMSTRONG
Tech. Officer: HQ/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 40006 UNIVERSITY OF IDAHO – MOSCOW, IDAHO **4371**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
AND FELLOWSHIP PROGRAM
 12/10/1996 – 02/28/1998 FY98: \$0 Total: \$82,703
Prin. Invest.: R GILL
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 40056 UNIVERSITY OF IDAHO – MOSCOW, IDAHO **4372**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
AND FELLOWSHIP PROGRAM.
 02/12/1997 – 02/28/1999 FY98: \$363,250 Total: \$602,000
Prin. Invest.: R GILL
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

ILLINOIS

NCC 5 272 DEPAUL UNIVERSITY **4373**
OSS EDUCATION AND OUTREACH BROKER/FACILITATOR PROGRAM
 02/24/1998 – 03/14/1999 FY98: \$185,000 Total: \$185,000
Prin. Invest.: C C NARASIMHAN
Tech. Officer: GSFC/J ROSENDAHL
CASE Category: 11 – ASTRONOMY

NCC 1 167 ILLINOIS INSTITUTE OF TECHNOLOGY **4374**
CONTROLLED EXPERIMENTS ON INSTABILITIES AND TRANSITION TO TUR-
BULENCE ON CONES AT MACH 3.5 & 8
 08/04/1992 – 12/31/1997 FY98: \$0 Total: \$281,229
Prin. Invest.: T C CORKE
Tech. Officer: LARC/S P WILKINSON
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 90046 ILLINOIS INSTITUTE OF TECHNOLOGY **4375**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 02/04/1997 - 08/14/1998 FY98: \$0 Total: \$48,000
Prin. Invest.: I DOBBINS
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 46 - MECHANICAL ENGR

NAG 8 1262 ILLINOIS STATE UNIVERSITY **4376**
RESEARCH JOVE
 01/17/1997 - 08/31/1999 FY98: \$11,000 Total: \$51,000
Prin. Invest.: D HOLLAND
Tech. Officer: MSFC/J F DOWNDY, MSFC/J R PRUITT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 1654 NORTHWESTERN UNIVERSITY **4377**
EFFECTS OF PHYSICAL AND CHEMICAL AGING ON LONGTERM BEHAVIOR OF POLYMER MATRIX COMPOSITES — MY1/3
 01/05/1995 - 01/04/1998 FY98: \$1 Total: \$185,420
Prin. Invest.: L C BRINSON
Tech. Officer: LARC/T S GATES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1813 NORTHWESTERN UNIVERSITY **4378**
AN ULTRASONICS TECHNIQUE TO DETERMINE THE RESIDUAL STRENGTH OF ADHESIVE BONDS
 02/28/1996 - 02/28/1999 FY98: \$50,000 Total: \$129,167
Prin. Invest.: J D ACHENBACH, J S STECKENRIDER
Tech. Officer: LARC/W P WINFREE, LARC/W T YOST
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1604 NORTHWESTERN UNIVERSITY **4379**
STRUCTURE & DYNAMICS OF DIFFUSION FLAMES IN MICROGRAVITY
 05/23/1994 - 05/22/1999 FY98: \$50,600 Total: \$373,600
Prin. Invest.: M MATALON
Tech. Officer: LERC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1608 NORTHWESTERN UNIVERSITY **4380**
FILTRATION COMBUSTION FOR MICROGRAVITY APPLICATION ; (1) SMOLDERING (2) COMBUSTION SYNTHESIS ADV MAT
 05/24/1994 - 11/30/1998 FY98: \$65,000 Total: \$527,000
Prin. Invest.: B J MATKOWSKY
Tech. Officer: LERC/S A GOKOGLU
CASE Category: 43 - CHEMICAL ENGR

NAG 3 1737 NORTHWESTERN UNIVERSITY **4381**
THEORY OF SOLIDIFICATION
 04/18/1995 - 05/31/2000 FY98: \$150,000 Total: \$604,000
Prin. Invest.: S H DAVIS
Tech. Officer: LERC/ACHART
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1823 NORTHWESTERN UNIVERSITY **4382**
COARSENING IN SOLID-LIQUID MIXTURES
 04/01/1996 - 03/31/1999 FY98: \$225,421 Total: \$667,881
Prin. Invest.: P W VOORHEES
Tech. Officer: LERC/T K GLASGOW
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1855 NORTHWESTERN UNIVERSITY **4383**
CONTROLL OF FLOWING LIQUID FILMS BY ELECTROSTATIC FIELDS IN SPACE
 04/26/1996 - 03/31/2000 FY98: \$120,000 Total: \$310,000
Prin. Invest.: S B BANKOFF, R A SCHLUTER, M J MIKSIS
Tech. Officer: LERC/R A WILKINSON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1863 NORTHWESTERN UNIVERSITY **4384**
COMBUSTION OF ROTATING SPHERICAL PREMIXED AND DIFFUSION FLAMES IN MICROGRAVITY
 07/02/1996 - 06/30/2000 FY98: \$25,946 Total: \$173,944
Prin. Invest.: S H SOHRAB
Tech. Officer: LERC/N D PILTCH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1892 NORTHWESTERN UNIVERSITY **4385**
THE MICROMECHANICS OF THE MOVING CONTACT LINE
 06/01/1996 - 05/31/2000 FY98: \$80,000 Total: \$207,000
Prin. Invest.: S LICHTER
Tech. Officer: LERC/M WEISLOGEL
CASE Category: 13 - PHYSICS

NAG 3 1932 NORTHWESTERN UNIVERSITY **4386**
NONLINEAR RELAXATION AND FLUCTUATIONS IN A NON-EQUILIBRIUM NEAR CRITICAL LIQUID WITH A TEMP GRADIENT
 07/29/1996 - 07/31/2000 FY98: \$50,000 Total: \$140,999
Prin. Invest.: A Z PATASHINSKI, G A ZIMMERLI
Tech. Officer: LERC/B S SINGH
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1959 NORTHWESTERN UNIVERSITY **4387**
CAPILLARY-ELASTIC INSTABILITIES IN MICROGRAVITY
 08/29/1996 - 08/31/1998 FY98: \$8,766 Total: \$86,234
Prin. Invest.: J B GROTBERG, D H HALPERN
Tech. Officer: LERC/D CHAO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2113 NORTHWESTERN UNIVERSITY **4388**
COMPLEX DYNAMICS IN MARANGONI CONVECTION WITH ROTATION
 03/04/1998 - 01/16/2002 FY98: \$75,000 Total: \$75,000
Prin. Invest.: H R ECKE
Tech. Officer: LERC/F P CHIARAMONTE
CASE Category: 46 - MECHANICAL ENGR

NAG 5 2003 NORTHWESTERN UNIVERSITY **4389**
GPS GEODETIC MONITORING OF SOUTH AMERICA-NAZCA CONVERGENCE
 07/01/1992 - 01/31/1998 FY98: \$0 Total: \$129,188
Prin. Invest.: S A STEIN
Tech. Officer: GSI/C B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 2432 NORTHWESTERN UNIVERSITY **4390**
SMALL SCALE SUBSTRUCTURE WITHIN THE COMA CLUSTER OF GALAXIES
 11/12/1993 - 11/31/1998 FY98: \$64,000 Total: \$344,600
Prin. Invest.: M ULMER
Tech. Officer: GSFC/D WEST
CASE Category: 1 - ASTRONOMY

NAG 5 2717 NORTHWESTERN UNIVERSITY **4391**
THE SHADOWING EFFECT OF THE GALAXY NGC 4244 ON THE COSMIC X-RAY BACKGROUND (\$5,958)
 09/07/1994 – 09/14/1997 FY98: \$0 Total: \$53,077
Prin. Invest.: Q WANG
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 2826 NORTHWESTERN UNIVERSITY **4392**
OSSE OBSERVATIONS OF GALACTIC BLACK HOLE CANDIDATE S AND THEIR NEUTRON-STAR IMPOSTERS
 12/14/1994 – 12/14/1997 FY98: \$0 Total: \$61,639
Prin. Invest.: D A GRABELSKY
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3125 NORTHWESTERN UNIVERSITY **4393**
CGRO MAPS OF 26 AL USING NEW, IMPROVED TECHNIQUES
 10/18/1995 – 10/31/1997 FY98: \$0 Total: \$92,900
Prin. Invest.: M P ULMER
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3396 NORTHWESTERN UNIVERSITY **4394**
X-RAY BURSTS WITH PHOTOSPHERIC EXPANSION: THE MASS OF NEUTRON STARS AND SUPER-EDDINGTON WINDS
 09/26/1996 – 03/31/1998 FY98: \$0 Total: \$44,999
Prin. Invest.: O S MILLER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3414 NORTHWESTERN UNIVERSITY **4395**
A VERY DEEP IMAGE OF THE 30 DORADUS REGION
 01/08/1997 – 03/14/1998 FY98: \$0 Total: \$17,000
Prin. Invest.: Q WANG
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 3490 NORTHWESTERN UNIVERSITY **4396**
IMPROVED CGRO MAPS OF 26AL
 11/13/1996 – 12/31/1998 FY98: \$0 Total: \$29,000
Prin. Invest.: M P ULMER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3583 NORTHWESTERN UNIVERSITY **4397**
HIGH-ENERGY EMISSION IN COSMIC GAMMA-RAY BURSTS
 12/06/1996 – 12/14/1997 FY98: \$0 Total: \$19,506
Prin. Invest.: S M MATZ
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3588 NORTHWESTERN UNIVERSITY **4398**
OSSE SEARCH FOR BURST COUNTERPARTS
 12/11/1996 – 12/14/1998 FY98: \$37,927 Total: \$63,114
Prin. Invest.: S M MATZ
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3673 NORTHWESTERN UNIVERSITY **4399**
GALACTIC DIFFUSE CONTINUUM MAPPING
 01/02/1997 – 12/31/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: W R PURCELL
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3816 NORTHWESTERN UNIVERSITY **4400**
OSSE OBSERVATIONS OF THE CARINA REGION OF THE GALAXY
 01/20/1997 – 01/14/1999 FY98: \$0 Total: \$23,000
Prin. Invest.: D A GRABELSKY
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3926 NORTHWESTERN UNIVERSITY **4401**
THE PULSED AND NEBULAR SPECTRA OF PSR B1509-58
 02/19/1997 – 02/14/1999 FY98: \$0 Total: \$19,622
Prin. Invest.: S M MATZ
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 4240 NORTHWESTERN UNIVERSITY **4402**
OSSE SKY SURVEY OBSERVATIONS FOR CYCLE 6
 04/01/1997 – 04/14/1999 FY98: \$0 Total: \$7,575
Prin. Invest.: W R PURCELL
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 4260 NORTHWESTERN UNIVERSITY **4403**
GRAVITATIONAL RADIATION SOURCES FOR THE LAGOS
 04/07/1997 – 12/31/1998 FY98: \$0 Total: \$35,000
Prin. Invest.: D S FINN
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 4354 NORTHWESTERN UNIVERSITY **4404**
MARINER 10 COLOR AND ALBEDO OF MERCURY AND THE MOON
 04/24/1997 – 03/31/1999 FY98: \$48,741 Total: \$97,179
Prin. Invest.: D S ROBINSON
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4632 NORTHWESTERN UNIVERSITY **4405**
A SEARCH FOR PULSED X-RAY EMISSION FROM PSR B0144-60
 05/21/1997 – 05/31/1998 FY98: \$0 Total: \$20,562
Prin. Invest.: M P ULMER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 5094 NORTHWESTERN UNIVERSITY **4406**
THE DEVELOPMENT OF A FOCUSING SYSTEM FOR 40-100 KEV X-RAYS
 11/22/1996 – 03/31/1999 FY98: \$795,000 Total: \$225,000
Prin. Invest.: M P ULMER
Tech. Officer: GSFC/L W GURKIN
CASE Category: 13 – PHYSICS

NAG 5 6413 NORTHWESTERN UNIVERSITY **4407**
THE HOT INTERSTELLAR MEDIUM (LTSA - NEW)
 10/24/1997 – 10/31/1998 FY98: \$91,000 Total: \$91,000
Prin. Invest.: Q WANG
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6730 NORTHWESTERN UNIVERSITY **4408**
INVESTIGATION OF III-V SEMICONDUCTOR MATERIALS FOR OPTIMIZED UV PHOTODETECTORS
 12/11/1997 - 12/31/1998 FY98: \$67,000 Total: \$67,000
Prin. Invest.: B W WESSELS
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 6736 NORTHWESTERN UNIVERSITY **4409**
GPS MONITORING OF STRAIN ACCUMULATION IN THE NEW MADRID SEISMIC ZONE
 12/17/1997 - 12/31/1998 FY98: \$32,085 Total: \$32,085
Prin. Invest.: S STEIN
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6824 NORTHWESTERN UNIVERSITY **4410**
CLEMENTINE GLOBAL MOSAIC PROCESSING SUPPORT
 01/12/1998 - 12/31/1998 FY98: \$20,895 Total: \$20,895
Prin. Invest.: M ROBINSON
Tech. Officer: GSFC/P ROGERS
CASE Category: 11 - ASTRONOMY

NAG 5 6847 NORTHWESTERN UNIVERSITY **4411**
X-RAYING MOLECULAR CLOUDS
 01/12/1998 - 01/14/1999 FY98: \$29,865 Total: \$29,865
Prin. Invest.: Q WANG
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6874 NORTHWESTERN UNIVERSITY **4412**
THE SIXTH INTERNATIONAL SYMPOSIUM ON PARTICLES, ST RINGS AND COSMOLOGY (PASCOS-98)
 01/14/1998 - 12/31/1998 FY98: \$10,000 Total: \$10,000
Prin. Invest.: P NATH
Tech. Officer: GSFC/H HASAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6927 NORTHWESTERN UNIVERSITY **4413**
TIME LAG MEASUREMENTS OF THE CRAB PULSAR TO INFER THE SIZE OF THE X-RAY EMISSION REGION - X
 02/02/1998 - 01/31/1999 FY98: \$6,000 Total: \$6,000
Prin. Invest.: M ULMER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7011 NORTHWESTERN UNIVERSITY **4414**
THEORETICAL STUDIES OF X-RAY BURSTS IN ACCRETING NEUTRON STARS - ATP
 02/18/1998 - 02/14/1999 FY98: \$70,000 Total: \$70,000
Prin. Invest.: R E TAAM
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7280 NORTHWESTERN UNIVERSITY **4415**
XTE PROPOSAL - A SEARCH FOR PULSED X-RAY EMISSION FROM PSR B2334+61
 04/15/1998 - 05/31/1999 FY98: \$8,500 Total: \$8,500
Prin. Invest.: M P ULMER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAGW 4274 NORTHWESTERN UNIVERSITY **4416**
GRAVITATIONAL RADIATION SOURCES FOR INTERFEROMETRIC SPACE-BASED DETECTORS
 01/31/1995 - 12/31/1997 FY98: \$0 Total: \$69,999
Prin. Invest.: L S FINN
Tech. Officer: HC/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAS 5 98153 NORTHWESTERN UNIVERSITY **4417**
CONSTELLATION X-RAY MISSION
 06/22/1998 - 12/31/1998 FY98: \$63,000 Total: \$63,000
Prin. Invest.: M F ULMER
Tech. Officer: GSFC/J GRADY, GSFC/R MAUK
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 271 NORTHWESTERN UNIVERSITY **4418**
SYNERGISTIC EFFECTS OF PHYSICAL AGING AND DAMAGE TO POLYMER MATRIX COMPOSITES
 01/09/1998 - 10/31/1998 FY98: \$76,936 Total: \$76,936
Prin. Invest.: L C BRINSON
Tech. Officer: LA R C/T GATES
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 2 1013 NORTHWESTERN UNIVERSITY **4419**
PROPHESY: A HIERARCHICAL TOOL FOR MODELING & ANALYZING PARALLEL SCIENTIFIC APPLICATIONS
 01/27/1998 - 01/31/1999 FY98: \$90,415 Total: \$90,415
Prin. Invest.: V E TAYLOR
Tech. Officer: ARC/A GRADY
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1017 NORTHWESTERN UNIVERSITY **4420**
ARTICULATE SOFTWARE FOR SPACE-RELATED OUTREACH ACTIVITIES
 02/05/1998 - 01/31/1999 FY98: \$92,405 Total: \$92,405
Prin. Invest.: K D FORBUS
Tech. Officer: ARC/M H SHIRLEY
CASE Category: 22 - COMPUTER SCIENCE

NGT 30244 NORTHWESTERN UNIVERSITY **4421**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/10/1994 - 08/31/1997 FY98: \$1,988 Total: \$44,000
Prin. Invest.: P S CHEUERMANN
Tech. Officer: HC/E LUCIER, HQ/G ASRAR
CASE Category: 22 - COMPUTER SCIENCE

NGT 51301 NORTHWESTERN UNIVERSITY **4422**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/07/1994 - 08/31/1997 FY98: -\$653 Total: \$65,347
Prin. Invest.: J B KETTERSON
Tech. Officer: HC/D HOLLAND
CASE Category: 13 - PHYSICS

NGT 51349 NORTHWESTERN UNIVERSITY **4423**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 - 06/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: S C BANKOFF
Tech. Officer: HC/G A LESANE
CASE Category: 46 - MECHANICAL ENGR

NASA'S UNIVERSITY PROGRAM

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| NGT 51388 NORTHWESTERN UNIVERSITY 4424 GRADUATE STUDENT RESEARCHERS PROGRAM 06/30/1995 - 08/31/1998 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> B J MATKOWSKY <i>Tech. Officer:</i> HQ/D GLASCO <i>CASE Category:</i> 21 - MATHEMATICS | NAG 5 3120 SOUTHERN ILLINOIS UNIVERSITY - CARBONDALE 4432 GEOPHYSICAL CHARACTERIZATION OF SOME TERRANES AND THE GEO- PHYSICAL MODELING OF CANDIDATE SUTURE ZONES 10/26/1995 - 10/31/1999 FY98: \$0 Total: \$51,000 <i>Prin. Invest.:</i> D RAVAT <i>Tech. Officer:</i> GSFC/R A LANGE, GSFC/P T TAYLOR <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE |
| NGT 51668 NORTHWESTERN UNIVERSITY 4425 GRAD STUD RES PROGRAM 08/20/1996 - 06/30/1997 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> M MATHALON <i>Tech. Officer:</i> HQ/G LESANE <i>CASE Category:</i> 21 - MATHEMATICS | NAG 5 7662 SOUTHERN ILLINOIS UNIVERSITY - CARBONDALE 4433 'COMPREHENSIVE MODELS OF THE NEAR-EARTH MAGNETIC F IELD:INTERPRETATION OF THE LITHOSPHER 09/09/1998 - 03/14/1999 FY98: \$18,500 Total: \$18,500 <i>Prin. Invest.:</i> D RAVAT <i>Tech. Officer:</i> GSFC/H V FREY <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE |
| NGT 5 45 NORTHWESTERN UNIVERSITY 4426 DEVELOPMENT OF ALGAN UV PHOTODETECTORS 06/23/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> M RAZEHI <i>Tech. Officer:</i> GSFC/M S BURRELL <i>CASE Category:</i> 49 - ENGINEERING, OTHER | NCC 2 5122 SOUTHERN ILLINOIS UNIVERSITY - CARBONDALE 4434 MATHEMATICAL MODELING OF ADSORPTION COLUMNS FOR RE MOVAL OF MULTIPLE CONTA 03/17/1995 - 05/15/1997 FY98: -\$1,210 Total: \$54,231 <i>Prin. Invest.:</i> B A DEVANTIER <i>Tech. Officer:</i> ARC/J E FINN <i>CASE Category:</i> 43 - CHEMICAL ENGR |
| NGT 5 50016 NORTHWESTERN UNIVERSITY 4427 STUDIES ON SPERICAL DIFFUSION FLAMES IN MICROGRAVITY 07/14/1997 - 06/30/1998 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> M MATALON <i>Tech. Officer:</i> GSFC/A NURRIDIN <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER | NAG 2 380 UNIVERSITY OF CHICAGO 4435 DATA REDUCTIONS AND ANALYSIS FOR THE UNIV OF CHICACHARGED PARTICLE INSTRUMENT ON THE PIONEER10 AND 11/01/1987 - 01/31/1998 FY98: \$0 Total: \$4,786,752 <i>Prin. Invest.:</i> J A SIMPSON <i>Tech. Officer:</i> ARC/L E LASHER, ARC/R A CRAIG <i>CASE Category:</i> 13 - PHYSICS |
| NGT 5 50038 NORTHWESTERN UNIVERSITY 4428 MELTING AND SPREADING EFFECTS IN SMOLDERING AND 07/14/1997 - 08/31/1998 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> B J MATKOWSKY <i>Tech. Officer:</i> GSFC/A NURRIDIN <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER | NAG 2 1036 UNIVERSITY OF CHICAGO 4436 SOFIA SCIENCE WORKING GROUP 04/03/1996 - 09/30/1998 FY98: \$0 Total: \$14,585 <i>Prin. Invest.:</i> R HILDEBRAND <i>Tech. Officer:</i> ARC/E F ERICKSON <i>CASE Category:</i> 11 - ASTRONOMY |
| NGT 5 50172 NORTHWESTERN UNIVERSITY 4429 KILOHERTZ QPO NATURE AND ORIGINS USING RXTE 05/22/1998 - 08/31/2001 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> MILLER, D LEE <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 13 - PHYSICS | NAG 2 1059 UNIVERSITY OF CHICAGO 4437 ANALYSIS OF POLARIZATION DATA FROM THE KUIPER AIRB ORNE OBSERVATORY 07/01/1996 - 03/31/1998 FY98: \$0 Total: \$27,343 <i>Prin. Invest.:</i> R H HILDEBRAND <i>Tech. Officer:</i> ARC/L QUAIFE, ARC/C B WILTSEE <i>CASE Category:</i> 11 - ASTRONOMY |
| NGT 5 50198 NORTHWESTERN UNIVERSITY 4430 IMPROVED FEM DYNAMIC SUBSTRUCTURING THROUGH WAVE-B ASSED JOINT MODELS 06/18/1998 - 08/31/2001 FY98: \$16,500 Total: \$16,500 <i>Prin. Invest.:</i> T IGUSA <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 46 - MECHANICAL ENGR | NAG 2 1081 UNIVERSITY OF CHICAGO 4438 A POLARIMETER FOR SOFIA 08/23/1996 - 03/31/1999 FY98: \$0 Total: \$152,463 <i>Prin. Invest.:</i> R H HILDEBRAND <i>Tech. Officer:</i> ARC/L QUAIFE, ARC/C B WILTSEE <i>CASE Category:</i> 11 - ASTRONOMY |
| NGT 5 50211 NORTHWESTERN UNIVERSITY 4431 STABILITY OF DIFFUSION FLAMES IN MICROGRAVITY 07/10/1998 - 06/30/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> M MATALON <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 49 - ENGINEERING, OTHER | NAG 2 6001 UNIVERSITY OF CHICAGO 4439 REALL-TIME DATA/VIDEO/VOICE UPLINK & DOWNLINK FOR THE KUIPER AIRBORNE OBSERVATORY (KAO) 08/22/1994 - 06/30/1997 FY98: \$10,805 Total: \$56,000 <i>Prin. Invest.:</i> R A LOEWINSTEIN, J C SWEITZER, D B COLE <i>Tech. Officer:</i> ARC/R YEE, ARC/D J TUCKER <i>CASE Category:</i> 41 - AERONAUTICAL ENGR |

NAG 5 706 UNIVERSITY OF CHICAGO **4440**
ASTROPHYSICAL STUDIES OF IMP SATELLITE DATA
 10/01/1985 - 09/30/1998 FY98: \$75,000 Total: \$1,581,071
Prin. Invest.: J A SIMPSON, M G MUNOIR
Tech. Officer: GSFC/G BULLOCK
CASE Category: 11 - ASTRONOMY

NAG 5 1454 UNIVERSITY OF CHICAGO **4441**
ANALYZING/INTERPRETING GAMMA-RAY BURST SPECTRA
 08/27/1990 - 07/31/1997 FY98: \$0 Total: \$419,470
Prin. Invest.: D Q LAMB
Tech. Officer: GSFC/J P NORRIS, GSFC/D A KNIFFEN
CASE Category: 11 - ASTRONOMY

NAG 5 1485 UNIVERSITY OF CHICAGO **4442**
MAGNETIC FIELD DYNAMICS IN THE SOLAR INTERIOR AND OUTER SOLAR ATMOSPHERE
 11/26/1990 - 04/30/1998 FY98: \$297,040 Total: \$2,291,640
Prin. Invest.: R ROSNER
Tech. Officer: GSFC/T J BIRMINGHAM
CASE Category: 13 - PHYSICS

NAG 5 2660 UNIVERSITY OF CHICAGO **4443**
ANALYSIS OF CLUSTERING AND STRUCTURE IN THE ANGULA DISTRIBUTION OF GAMMA RAY BURSTS
 07/21/1994 - 08/31/1997 FY98: \$0 Total: \$163,000
Prin. Invest.: J M QUASHNOCK, D Q LAMB
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2687 UNIVERSITY OF CHICAGO **4444**
TEMPORAL AND SPECTRAL PROPERTIES OF GALACTIC BLACK HOLE CANDIDATES
 08/16/1994 - 08/31/1998 FY98: \$0 Total: \$163,000
Prin. Invest.: D Q LAMB
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2792 UNIVERSITY OF CHICAGO **4445**
MODIFIED LAGRANGIAN-MEAN DIAGNOSTICS OF THE STRATOSPHERIC TRACER TRANSPORT
 11/18/1994 - 05/31/1998 FY98: \$0 Total: \$257,643
Prin. Invest.: N NAKAMURA
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2849 UNIVERSITY OF CHICAGO **4446**
STATISTICAL ANALYSIS OF ATMOSPHERIC TEMPERATURE AND OZONE DATA TREND FEATURES AND COMPARISONS, ETC
 12/15/1994 - 02/14/1999 FY98: \$25,000 Total: \$127,370
Prin. Invest.: G C TIAO
Tech. Officer: GSFC/R D MCPETERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2868 UNIVERSITY OF CHICAGO **4447**
FUNDAMENTAL STUDIES IN HIGH ENERGY ASTROPHYSICS
 01/09/1995 - 03/14/1999 FY98: \$60,000 Total: \$243,000
Prin. Invest.: D Q LAMB
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3041 UNIVERSITY OF CHICAGO **4448**
CLIMATOLOGICAL VARIATION OF EL NINOS
 08/01/1995 - 05/30/1997 FY98: \$0 Total: \$145,000
Prin. Invest.: T T FUJITA
Tech. Officer: GSFC/A J NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3076 UNIVERSITY OF CHICAGO **4449**
STUDIES OF CLASSICAL NOVAE: CONFRONTATION OF THEORY WITH OBSERVATION
 09/22/1995 - 09/30/1999 FY98: \$26,884 Total: \$77,751
Prin. Invest.: S G TRURAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3140 UNIVERSITY OF CHICAGO **4450**
RADIATIVE TRANSFER IN THE LOWER ATMOSPHERE BASED ON TOMS/ADEOS MEASUREMENT
 11/03/1995 - 05/31/1998 FY98: \$0 Total: \$149,100
Prin. Invest.: J E FREDERICK, NONE
Tech. Officer: GSFC/A J KRUEGER, GSFC/P K BHARTIA
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3201 UNIVERSITY OF CHICAGO **4451**
HRI OBSERVATIONS OF THE PLEIADES III: THE REST OF THE STORY
 04/12/1996 - 10/4/1997 FY98: \$0 Total: \$8,775
Prin. Invest.: R R JSKER
Tech. Officer: GSFC/R PETRE
CASE Category: 12 - CHEMISTRY

NAG 5 3202 UNIVERSITY OF CHICAGO **4452**
IMAGE OF A CANDIDATE HIGH REDSHIFT X-RAY CLUSTER OF GALAXIES
 04/12/1996 - 10/4/1998 FY98: \$0 Total: \$9,196
Prin. Invest.: R NICHOL
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 3228 UNIVERSITY OF CHICAGO **4453**
ABUNDANCES AND PHYSICAL CONDITIONS FOR INDIVIDUALS INTERSTELLAR CLOUDS
 05/07/1996 - 04/30/1999 FY98: \$121,800 Total: \$354,300
Prin. Invest.: D E VELTY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3253 UNIVERSITY OF CHICAGO **4454**
MICROWAVE ANISOTROPY PROBE FOR MIDEX
 06/06/1996 - 06/11/1997 FY98: \$0 Total: \$59,357
Prin. Invest.: S S HEYER
Tech. Officer: GSFC/C L BENNETT
CASE Category: 1 - ASTRONOMY

NAG 5 3670 UNIVERSITY OF CHICAGO **4455**
ANALYSIS AND MODELING OF CYCLOTRON LINES IN THE SP BURSTS; CONSTRAINTS ON THE DISTANCE SCALE TO COSMO
 12/31/1996 - 12/31/1998 FY98: \$25,000 Total: \$55,000
Prin. Invest.: D Q LAMB
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

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| NAG 5 3687 UNIVERSITY OF CHICAGO 4456 ACCRETION AND OUTFLOW PHENOMENA IN YOUNG STELLAR O 01/15/1997 - 01/14/1999 FY98: \$131,600 Total: \$263,200 Prin. Invest.: A KONIGL Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY | NAG 5 4406 UNIVERSITY OF CHICAGO 4465 STUDY OF THE SYSTEMATIC ERRORS IN THE POSITIONS O 05/06/1997 - 05/14/1999 FY98: \$0 Total: \$41,000 Prin. Invest.: D Q LAMB Tech. Officer: GSFC/J P NORRIS CASE Category: 11 - ASTRONOMY |
| NAG 5 3986 UNIVERSITY OF CHICAGO 4457 ISOTOPIC STUDIES OF THE MOON AND METEORITES 02/26/1997 - 03/31/2001 FY98: \$220,833 Total: \$460,833 Prin. Invest.: D N CLAYTON Tech. Officer: GSFC/J BOYCE CASE Category: 12 - CHEMISTRY | NAG 5 4461 UNIVERSITY OF CHICAGO 4466 STELLAR ORIGINS AND INTERSTELLAR CARRIERS OF NUCLEOMALIES 05/21/1997 - 03/31/1998 FY98: \$0 Total: \$40,000 Prin. Invest.: D N CLAYTON Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY |
| NAG 5 4005 UNIVERSITY OF CHICAGO 4458 WEB-SITE DISSEMINATION OF THE UNIVERSITY OF CHICAGO SETS 03/06/1997 - 02/28/1998 FY98: \$0 Total: \$15,887 Prin. Invest.: D LOPATE Tech. Officer: GSFC/J WILLETT CASE Category: 13 - PHYSICS | NAG 5 4462 UNIVERSITY OF CHICAGO 4467 MILLIMETER APERTURE SYNTHESIS POLARIMETRY AND THE N OF PROTO-PLANETARY DISKS 06/09/1997 - 09/30/1998 FY98: \$0 Total: \$78,776 Prin. Invest.: D E CARLSTROM Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY |
| NAG 5 4070 UNIVERSITY OF CHICAGO 4459 INFRARED SPECTROSCOPY OF MOLECULAR IONS OF ASTROPH 03/19/1997 - 03/14/1999 FY98: \$48,125 Total: \$125,125 Prin. Invest.: D OKA Tech. Officer: GSFC/H THRONSON CASE Category: 11 - ASTRONOMY | NAG 5 4476 UNIVERSITY OF CHICAGO 4468 CHEMICAL ASPECTS OF THE ORIGIN OF THE SOLAR SYSTEM 06/09/1997 - 11/30/1997 FY98: \$0 Total: \$218,000 Prin. Invest.: D GROSSMAN Tech. Officer: GSFC/D NAVA CASE Category: 11 - ASTRONOMY |
| NAG 5 4087 UNIVERSITY OF CHICAGO 4460 ANALYSIS OF ICE-SHELF TEARING AND FLOW SEPARATION 03/10/1997 - 12/31/1998 FY98: \$17,050 Total: \$33,880 Prin. Invest.: D MACAYEAL Tech. Officer: GSFC/R H THOMAS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 4499 UNIVERSITY OF CHICAGO 4469 MARS 94 PARTICIPATING SCIENTIST AND CO-INVESTIGATO 05/06/1997 - 04/30/1999 FY98: \$0 Total: \$60,000 Prin. Invest.: D E ECONOMOU Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY |
| NAG 5 4153 UNIVERSITY OF CHICAGO 4461 ARCHIVING THE CRRES ONR-604 EXPERIMENT DATASET AND NSSDC 03/17/1997 - 03/31/1998 FY98: \$0 Total: \$33,946 Prin. Invest.: D PYLE Tech. Officer: GSFC/J WILLETT CASE Category: 13 - PHYSICS | NAG 5 4508 UNIVERSITY OF CHICAGO 4470 PRECISION BALLOON-BORNE MEASUREMENTS IN THE COSMIC RADIATION 05/30/1997 - 05/31/1998 FY98: \$0 Total: \$10,000 Prin. Invest.: S MEYER Tech. Officer: GSFC/R F SILVERBERG CASE Category: 13 - PHYSICS |
| NAG 5 4234 UNIVERSITY OF CHICAGO 4462 BARYONS IN THE UNIVERSE: FROM REDSHIFT 10² TO H 03/24/1997 - 03/31/1999 FY98: \$0 Total: \$35,000 Prin. Invest.: D N SCHRAMM Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY | NAG 5 4509 UNIVERSITY OF CHICAGO 4471 GINGA GAMMA-RAY BURST LINE OCCURRENCE 05/15/1997 - 05/14/1999 FY98: \$0 Total: \$47,900 Prin. Invest.: D Q LAMB Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY |
| NAG 5 4297 UNIVERSITY OF CHICAGO 4463 PRESOLAR GRAINS AND THE EARLY SOLAR SYSTEM 04/04/1997 - 11/30/1998 FY98: \$179,000 Total: \$357,595 Prin. Invest.: D S LEWIS Tech. Officer: GSFC/D NAVA CASE Category: 11 - ASTRONOMY | NAG 5 4595 UNIVERSITY OF CHICAGO 4472 ON-LINE ARCHIVAL OF THE UNIVERSITY OF CHICAGO IMP- 05/19/1997 - 12/31/1997 FY98: \$0 Total: \$9,071 Prin. Invest.: D LOPATE Tech. Officer: GSFC/J WILLETT CASE Category: 13 - PHYSICS |
| NAG 5 4298 UNIVERSITY OF CHICAGO 4464 REFRACTORY INCLUSIONS IN CARBONACEOUS CHONDRITES 04/04/1997 - 02/28/1999 FY98: \$59,333 Total: \$148,333 Prin. Invest.: D M DAVIS Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY | |

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| NAG 5 4702 UNIVERSITY OF CHICAGO 4473 MINERALOGY AND CHEMISTRY OF PLANETS AND METEORITES 06/11/1997 - 05/31/1999 FY98: \$0 Total: \$30,000 <i>Prin. Invest.:</i> D M STEELE <i>Tech. Officer:</i> GSFC/D F NAVA <i>CASE Category:</i> 11 - ASTRONOMY | NAG 5 5179 UNIVERSITY OF CHICAGO 4481 ORIGINS OF GALACTIC COSMIC RADIATION: TESTING ALTERNATE MODELS WITH RADIOACTIVE & STABLE ISOTOPE 03/09/1998 - 12/31/1998 FY98: \$40,000 Total: \$40,000 <i>Prin. Invest.:</i> J F SIMPSON <i>Tech. Officer:</i> GSFC/B A MERRITT <i>CASE Category:</i> 13 - PHYSICS |
| NAG 5 4777 UNIVERSITY OF CHICAGO 4474 PHYSICAL INVESTIGATORS RELATED TO RAIN AND RETRIEVAL OF RAIN AND LATENT HEATING 06/20/1997 - 06/30/1999 FY98: \$97,000 Total: \$176,668 <i>Prin. Invest.:</i> R C SRIVASTAVA <i>Tech. Officer:</i> GSFC/O W THIELE <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | NAG 5 6180 UNIVERSITY OF CHICAGO 4482 KINETICS OF VOLATILIZATION OF INTERSTELLAR GRAINS 08/05/1997 - 03/31/1998 FY98: \$0 Total: \$60,000 <i>Prin. Invest.:</i> D GROSSMAN <i>Tech. Officer:</i> GSFC/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 4953 UNIVERSITY OF CHICAGO 4475 TURBULENT CONVECTION AND ITS ROLE IN ACOUSTIC EMISSIONS 06/23/1997 - 04/30/2001 FY98: \$44,908 Total: \$134,908 <i>Prin. Invest.:</i> D CATTANEO <i>Tech. Officer:</i> GSFC/W J WAGNER <i>CASE Category:</i> 13 - PHYSICS | NAG 5 6188 UNIVERSITY OF CHICAGO 4483 SOURCE POPULATION OF PICKUP IONS AND ANOMALOUS COSMIC RAYS 09/05/1997 - 04/30/1998 FY98: \$0 Total: \$45,000 <i>Prin. Invest.:</i> D FRISCH <i>Tech. Officer:</i> GSFC/M FORMAN <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 5070 UNIVERSITY OF CHICAGO 4476 HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) 05/03/1996 - 11/30/1998 FY98: \$217,000 Total: \$727,000 <i>Prin. Invest.:</i> D MULLER <i>Tech. Officer:</i> GSFC/H C NEEDLEMAN, GSFC/B A MERRITT <i>CASE Category:</i> 13 - PHYSICS | NAG 5 6405 UNIVERSITY OF CHICAGO 4484 STRUCTURE, KINEMATICS & ABUNDANCES IN LOCAL ISM (LTSA) 10/10/1997 - 10/14/1998 FY98: \$61,000 Total: \$61,000 <i>Prin. Invest.:</i> P F FRISCH <i>Tech. Officer:</i> GSFC/D WEST <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 5071 UNIVERSITY OF CHICAGO 4477 STUDIES OF THE COSMIC RADIATION AT HIGH ENERGIES 05/03/1996 - 11/30/1998 FY98: \$217,000 Total: \$672,000 <i>Prin. Invest.:</i> S P SWORDY <i>Tech. Officer:</i> GSFC/H C NEEDLEMAN, GSFC/B A MERRITT <i>CASE Category:</i> 13 - PHYSICS | NAG 5 6472 UNIVERSITY OF CHICAGO 4485 PIONEER - 10 INVESTIGATIONS OF JOVIAN AND HELIOSPHERIC RELATIVISTIC ELECTRONS 11/13/1997 - 10/1/1998 FY98: \$50,000 Total: \$50,000 <i>Prin. Invest.:</i> J SIMPSON <i>Tech. Officer:</i> GSFC/J LING <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 5072 UNIVERSITY OF CHICAGO 4478 EXPERIMENTS IN HIGH ENERGY ASTROPHYSICS 05/03/1996 - 11/30/1998 FY98: \$325,000 Total: \$595,000 <i>Prin. Invest.:</i> D MULLER <i>Tech. Officer:</i> GSFC/H C NEEDLEMAN, GSFC/B A MERRITT <i>CASE Category:</i> 13 - PHYSICS | NAG 5 6489 UNIVERSITY OF CHICAGO 4486 DEVELOPMENT OF FREQUENCY SELECTIVE BOLOMETERS 01/15/1998 - 10/31/1998 FY98: \$125,000 Total: \$125,000 <i>Prin. Invest.:</i> D MEYER <i>Tech. Officer:</i> GSFC/H THRONSON <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 5089 UNIVERSITY OF CHICAGO 4479 GIANT PLATFORMS FOR COSMIC RAY OBSERVATIONS ABOVE THE ATMOSPHERE 11/14/1996 - 09/30/1999 FY98: \$0 Total: \$235,139 <i>Prin. Invest.:</i> D MULLER <i>Tech. Officer:</i> GSFC/M C NEEDLEMAN, GSFC/N A MERRITT <i>CASE Category:</i> 13 - PHYSICS | NAG 5 6625 UNIVERSITY OF CHICAGO 4487 WORKSHOP ON INTERSTELLAR DUST IN THE SOLAR SYSTEM 11/19/1997 - 11/30/1999 FY98: \$25,000 Total: \$25,000 <i>Prin. Invest.:</i> P D FRISCH <i>Tech. Officer:</i> GSFC/H THRONSON <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 5178 UNIVERSITY OF CHICAGO 4480 STUDY OF A TRANSITION RADIATION DETECTOR FOR THE ACCESS MISION 03/30/1998 - 12/31/1998 FY98: \$145,000 Total: \$145,000 <i>Prin. Invest.:</i> S P SWORDY <i>Tech. Officer:</i> GSFC/B A MERRITT <i>CASE Category:</i> 13 - PHYSICS | NAG 5 6693 UNIVERSITY OF CHICAGO 4488 THE PRACTICAL AND OBSERVATIONAL INVESTIGATIONS OF LAGRANGIAN-MEAN TRANSPORT IN THE STRATOSPHERE 12/04/1997 - 12/31/1998 FY98: \$93,110 Total: \$93,110 <i>Prin. Invest.:</i> D NAKAMURA <i>Tech. Officer:</i> GSFC/C JACKMAN <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |

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| NAG 5 6765 UNIVERSITY OF CHICAGO 4489 ISM TOWARD ETA UMA 12/30/1997 – 12/31/1998 FY98: \$15,000 Total: \$15,000 Prin. Invest.: P FRISCH Tech. Officer: GSFC/R POLIDAN CASE Category: 11 – ASTRONOMY | NAG 5 7308 UNIVERSITY OF CHICAGO 4497 MINERALOGY AND CHEMISTRY OF PLANETS AND METEORITES 04/22/1998 – 05/30/1999 FY98: \$23,000 Total: \$23,000 Prin. Invest.: I M STEELE Tech. Officer: HQ/J BOYCE CASE Category: 11 – ASTRONOMY |
| NAG 5 6957 UNIVERSITY OF CHICAGO 4490 THE SPECTRA OF BL LAC OBJECTS BETWEEN GEV AND TEV ENERGIES 02/06/1998 – 01/31/1999 FY98: \$6,048 Total: \$6,048 Prin. Invest.: R A ONG Tech. Officer: GSFC/J P NORRIS CASE Category: 11 – ASTRONOMY | NAG 5 7529 UNIVERSITY OF CHICAGO 4498 CRYOGENIC STRIPLINE MULTIPLEXERS 06/10/1998 – 06/14/1999 FY98: \$22,820 Total: \$22,820 Prin. Invest.: S MEYER Tech. Officer: GSFC/G HINSHAW CASE Category: 11 – ASTRONOMY |
| NAG 5 6972 UNIVERSITY OF CHICAGO 4491 MASS LOSS KINETICS AND ISOTOPE FRACTIONATION OF MOL TEN CAI COMPOSITIONS 03/13/1998 – 03/31/2000 FY98: \$45,000 Total: \$45,000 Prin. Invest.: F M RICHTER, NONE Tech. Officer: HQ/J BOYCE CASE Category: 11 – ASTRONOMY | NAG 5 7731 UNIVERSITY OF CHICAGO 4499 RADIATIVE-DYNAMIC PROBLEMS RELATED TO THE ATMOSPHERE OF EARLY MARS 09/24/1998 – 09/30/2001 FY98: \$80,836 Total: \$80,836 Prin. Invest.: R PIERREHUMBERT, NONE Tech. Officer: GSFC/R BEEBE CASE Category: 11 – ASTRONOMY |
| NAG 5 7077 UNIVERSITY OF CHICAGO 4492 BOUNDARY CONDITIONS OF THE HELIOSPHERE 02/23/1998 – 04/30/1999 FY98: \$33,500 Total: \$33,500 Prin. Invest.: P C FRISCH Tech. Officer: GSFC/J LING CASE Category: 11 – ASTRONOMY | NAGW 1693 UNIVERSITY OF CHICAGO 4500 THE FOSSIL RECORD OF EVOLUTION DATA ON DIVERSIFICATION 03/01/1989 – 09/30/1997 FY98: -\$458 Total: \$294,542 Prin. Invest.: J J SEPKOSKI Tech. Officer: HQ/J D RUMMEL CASE Category: 32 – GEOLOGICAL SCIENCE |
| NAG 5 7163 UNIVERSITY OF CHICAGO 4493 DEVELOPMENT OF A MINIATURIZED LOW-ENERGY SOLAR NEUTRON DETECTOR FOR APPLICATION TO NEAR-SUNEXPLORA 03/12/1998 – 04/14/1999 FY98: \$65,890 Total: \$65,890 Prin. Invest.: R MCKIBBEN Tech. Officer: GSFC/W WAGNER CASE Category: 11 – ASTRONOMY | NAGW 1847 UNIVERSITY OF CHICAGO 4501 FURTHER DEVELOPMENT OF ALPHA PARTICLE INSTRUMENT WITH ALPHA PROTON AND X-RAY MODES 03/13/1990 – 12/31/1998 FY98: \$0 Total: \$1,077,734 Prin. Invest.: T ECONOMOU Tech. Officer: HQ/P R MAHAFFY CASE Category: 32 – GEOLOGICAL SCIENCE |
| NAG 5 7172 UNIVERSITY OF CHICAGO 4494 CHEMICAL ASPECTS OF THE ORIGIN OF THE SOLAR SYSTEM 03/24/1998 – 02/28/1999 FY98: \$210,000 Total: \$210,000 Prin. Invest.: L GROSSMAN Tech. Officer: HQ/J BOYCE CASE Category: 11 – ASTRONOMY | NAGW 2578 UNIVERSITY OF CHICAGO 4502 MARS '94 PARTICIPATING SCIENTIST AND COINVESTIGATOR PROGRAM 08/16/1991 – 04/30/1999 FY98: \$0 Total: \$797,008 Prin. Invest.: T ECONOMOU Tech. Officer: HQ/W L QUAIDE CASE Category: 19 – PHYSICAL SCIENCE, OTHER |
| NAG 5 7212 UNIVERSITY OF CHICAGO 4495 NUCLEOSYNTHETIC ISOTOPIC ANOMALIES 03/26/1998 – 03/31/2001 FY98: \$23,333 Total: \$23,333 Prin. Invest.: R CLAYTON Tech. Officer: HQ/J BOYCE CASE Category: 11 – ASTRONOMY | NAGW 3069 UNIVERSITY OF CHICAGO 4503 STELLAR ORIGINS AND INTERSTELLAR CARRIERS OF NUCLEOSYNTHETIC ISOTOPIC ANOMALIES 05/07/1992 – 03/31/1997 FY98: \$0 Total: \$180,000 Prin. Invest.: R CLAYTON Tech. Officer: HQ/J A NUTH CASE Category: 19 – PHYSICAL SCIENCE, OTHER |
| NAG 5 7307 UNIVERSITY OF CHICAGO 4496 KINETICS OF VOLATILIZATION OF INTERSTELLAR GRAINS 04/22/1998 – 03/31/2000 FY98: \$47,250 Total: \$47,250 Prin. Invest.: L GROSSMAN Tech. Officer: HQ/J BOYCE CASE Category: 11 – ASTRONOMY | NAGW 3345 UNIVERSITY OF CHICAGO 4504 ISOTOPIC STUDIES OF THE MOON AND METEORITES 01/15/1993 – 08/31/1997 FY98: \$0 Total: \$988,214 Prin. Invest.: R N CLAYTON Tech. Officer: HQ/H C BRINTON CASE Category: 13 – PHYSICS |

NAGW 3416 UNIVERSITY OF CHICAGO **4505**
MINERALOGY AND CHEMISTRY OF PLANETS AND METEORITES
 03/09/1993 - 05/31/1997 FY98: \$0 Total: \$251,231
Prin. Invest.: I STEELE
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3651 UNIVERSITY OF CHICAGO **4506**
DEVELOPMENT OF X-RAY FLUORESCENCE AND X-RAY ABSORPTION SPECTROSCOPY FACILITY
 06/15/1993 - 09/30/1997 FY98: \$0 Total: \$236,991
Prin. Invest.: S SUTTON
Tech. Officer: HQ/J BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 4504 UNIVERSITY OF CHICAGO **4507**
TURBULENT CONVECTION & ITS ROLE IN ACOUSTIC EMISSION & TRANSPORT
 05/16/1995 - 11/30/1997 FY98: \$0 Total: \$173,230
Prin. Invest.: F CATTANEO
Tech. Officer: HQ/W J WAGNER, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4678 UNIVERSITY OF CHICAGO **4508**
ANALYSIS OF QUASI-STEADY SOLAR CORONAL STRUCTURES FOR YOH-KOH
 08/18/1995 - 04/30/1997 FY98: -\$59 Total: \$98,037
Prin. Invest.: R ROSNER
Tech. Officer: HQ/W J WAGNER, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4682 UNIVERSITY OF CHICAGO **4509**
INTERSTELLAR GAS AND YOUNG STARS IN THE GALACTIC HALO
 08/04/1995 - 08/31/1998 FY98: \$0 Total: \$34,135
Prin. Invest.: L M HOBBS
Tech. Officer: HQ/R A STACHNIK
CASE Category: 11 - ASTRONOMY

NAGW 5005 UNIVERSITY OF CHICAGO **4510**
ANALYSIS OF ICE-SHELF TEARING AND FLOW-SEPARATION AT ICE-STREAM OUTLETS
 03/27/1996 - 12/31/1997 FY98: \$0 Total: \$5,580
Prin. Invest.: D R MACAYEAL
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5061 UNIVERSITY OF CHICAGO **4511**
SOURCE POPULATION OF THE PICK UP ION AND ANOMALOUS COSMIC RAYS
 05/23/1996 - 04/30/1997 FY98: -\$485 Total: \$45,515
Prin. Invest.: P C FRISCH
Tech. Officer: HQ/M A FORMAN, HQ/G L WITHBROE
CASE Category: 11 - ASTRONOMY

NCC 2 265 UNIVERSITY OF CHICAGO **4512**
NUMERICAL EXPERIMENTS ON THE DYNAMICS OF GALAXIES
 08/01/1983 - 08/31/1998 FY98: \$819 Total: \$247,678
Prin. Invest.: R H MILLER
Tech. Officer: ARC/B F SMITH, ARC/P M CASSEN
CASE Category: 11 - ASTRONOMY

NCC 5 151 UNIVERSITY OF CHICAGO **4513**
GRAND CHALLENGE RESEARCH
 08/26/1996 - 08/26/1999 FY98: \$538,000 Total: \$1,465,000
Prin. Invest.: A N ALAGOLI
Tech. Officer: GS/FC/J R FISCHER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 30323 UNIVERSITY OF CHICAGO **4514**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/11/1995 - 08/11/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: D R MACAYEAL
Tech. Officer: HC/M BALTUCK, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 50778 UNIVERSITY OF CHICAGO **4515**
NGT-50778/UNIV. CHICAGO/GRADUATE STUDENT RESEARCHERS PROGRAM
 07/01/1991 - 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: D Q LAMB
Tech. Officer: HQ/F C OWENS
CASE Category: 11 - ASTRONOMY

NGT 51059 UNIVERSITY OF CHICAGO **4516**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/09/1993 - 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: D Q LAMB
Tech. Officer: HQ/J HOLLAND
CASE Category: 11 - ASTRONOMY

NGT 5 18 UNIVERSITY OF CHICAGO **4517**
RADIATION-HYDRODYNAMICAL STUDIES OF BIASED GALAXY FORMATION
 07/15/1996 - 06/30/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: D Q LAMB
Tech. Officer: GSFC/G SOFFEN
CASE Category: 11 - ASTRONOMY

NGT 5 19 UNIVERSITY OF CHICAGO **4518**
TEMPERATURE ANTISOTROPIES IN THE COSMIC MICROWAVE BACKGROUND RADIATION (CMBR)
 07/15/1996 - 07/15/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: M S TURNER
Tech. Officer: GSFC/G A SOFFEN, GSFC/E CHENG
CASE Category: 11 - ASTRONOMY

NGT 5 63 UNIVERSITY OF CHICAGO **4519**
USING POP-UP DETECTOR ARRAYS FOR POLARIMETRY
 06/04/1998 - 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R H FILDERBRAND
Tech. Officer: GSFC/M S BURRELL
CASE Category: 13 - PHYSICS

NGT 5 30086 UNIVERSITY OF CHICAGO **4520**
SENSITIVITY OF THE WEST ANTARCTIC ICE SHEET TO CLIMATE INTERNAL FLOW PROCESSES, INVESTIGATED WITH A FINI
 09/09/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D MACAYEAL
Tech. Officer: GSFC/G ASRAR
CASE Category: 91 - MULTIDISCIPL, OTHER

NGT 5 50005 UNIVERSITY OF CHICAGO **4521**
ELEMENTAL COMPOSITION OF HIGH ENERGY COSMIC RAYS
 11/25/1996 – 09/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: D MULLER
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 13 – PHYSICS

NGT 5 50140 UNIVERSITY OF CHICAGO **4522**
WEAK GRAVITATIONAL LENSING WITH LARGE FIELD OF VIE
 09/10/1997 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J FREIMAN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50142 UNIVERSITY OF CHICAGO **4523**
STATISTICAL ANALYSIS OF THE COSMIC MICROWAVE BACKG
 09/10/1997 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D SCHRAM
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50173 UNIVERSITY OF CHICAGO **4524**
X-RAY AND SUNYAEV-ZEL'DOVICH IMAGING OF GALAXY CLUSTERS AS
ACOSMOLOGICAL PROBE
 05/22/1998 – 08/31/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J E CARLSTROM/REESE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 – ASTRONOMY

NGT 8 52838 UNIVERSITY OF CHICAGO **4525**
GRADUATE STUDENT RESEARCH PROGRAM
 07/11/1997 – 07/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: T K MINTON
Tech. Officer: MSFC/J ZWIENER
CASE Category: 12 – CHEMISTRY

NSG 2057 UNIVERSITY OF CHICAGO **4526**
STUDY OF SENSITIVE DETECTION SYSTEM FOR FAR INFRARED
ASTRONOMY
 12/14/1975 – 10/31/1997 FY98: \$0 Total: \$2,795,668
Prin. Invest.: R H HILDEBRAND
Tech. Officer: ARC/L CHAUGHNEY
CASE Category: 11 – ASTRONOMY

NAG 1 1594 UNIVERSITY OF ILLINOIS – CHICAGO CIRCLE **4527**
ADVANCED INTERFEROMETRIC TOMOGRAPHY FOR AERODYNAMICS
FLOW MEASUREMENTS
 02/09/1994 – 08/08/1997 FY98: \$0 Total: \$120,000
Prin. Invest.: S S CHA
Tech. Officer: LARC/A W BURNER JR., LARC/J C HOPPE
CASE Category: 46 – MECHANICAL ENGR

NAG 2 1172 UNIVERSITY OF ILLINOIS – CHICAGO CIRCLE **4528**
DATA INTENSIVE COMPUTING OF HYBRID SYSTEM DATA
 01/12/1998 – 11/30/1998 FY98: \$70,000 Total: \$70,000
Prin. Invest.: R GROSSMAN
Tech. Officer: ARC/G MEYER
CASE Category: 49 – ENGINEERING, OTHER

NAG 3 1631 UNIVERSITY OF ILLINOIS – CHICAGO CIRCLE **4529**
THE EFFECTS OF SOOTING IN REDUCED GRAVITY DROPLET COMBUSTION
 06/24/1994 – 01/05/1999 FY98: \$44,001 Total: \$345,933
Prin. Invest.: M Y CHOI
Tech. Officer: LERC/H D ROSS
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1905 UNIVERSITY OF ILLINOIS – CHICAGO CIRCLE **4530**
FLUID DYNAMICS AND SOLIDIFICATION OF MOLTEN SOLDER DROPLETS
IMPACTING ON A SUBSTRATE IN MICROGRAVITY
 06/10/1996 – 06/09/2000 FY98: \$95,662 Total: \$212,986
Prin. Invest.: D POULIKAKOS
Tech. Officer: LERC/W DUVAL
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 3 1992 UNIVERSITY OF ILLINOIS – CHICAGO CIRCLE **4531**
COMPUTERIZED GENERATION & SIMULATION OF MESHING & CONTACT OF
INVOLUTE TYPENOVIKOV HELICAL GEARS
 11/15/1996 – 11/14/1997 FY98: \$0 Total: \$60,000
Prin. Invest.: D LITVIN
Tech. Officer: LERC/D P TOWNSEND
CASE Category: 46 – MECHANICAL ENGR

NAG 5 4593 UNIVERSITY OF ILLINOIS – CHICAGO CIRCLE **4532**
ULTRASTRUCTURAL, NEUROCHEMICAL AND DEVELOPMENTAL RESEARCH IN
HYPERTENSIVE GRAVITY
 05/19/1997 – 05/14/1999 FY98: \$33,982 Total: \$112,857
Prin. Invest.: A LYSAKOWSKI
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 7600 UNIVERSITY OF ILLINOIS – CHICAGO CIRCLE **4533**
PARAMETERIZATION OF AN ANSIOTHERMAL VEGETATION
 07/21/1998 – 07/14/1999 FY98: \$50,006 Total: \$50,006
Prin. Invest.: R D CRAGO
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 8 1248 UNIVERSITY OF ILLINOIS – CHICAGO CIRCLE **4534**
THREE DIMENSIONAL VELOCITY FIELD CHARACTERIZATION IN A BRIDGMAN
APPARATUS
 04/30/1996 – 04/29/2000 FY98: \$91,667 Total: \$241,667
Prin. Invest.: S S CHA
Tech. Officer: MSFC/C R TALLEY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1261 UNIVERSITY OF ILLINOIS – CHICAGO CIRCLE **4535**
RESEARCH "COMBUSTION SYNTHESIS OF MATERIALS IN MICROGRAVITY"
 04/25/1996 – 04/30/2000 FY98: \$60,000 Total: \$243,531
Prin. Invest.: K BREZINSKY
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1473 UNIVERSITY OF ILLINOIS – CHICAGO CIRCLE **4536**
MICROGRAVITY INVESTIGATION OF DYNAMIC OXYGEN ABSORPTION IN
MOLTEN SOLDER JETTING
 04/13/1998 – 01/31/2002 FY98: \$66,667 Total: \$66,667
Prin. Invest.: C MEGARIDIS
Tech. Officer: MSFC/C TALLEY
CASE Category: 46 – MECHANICAL ENGR

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| NCC 2 986 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4537 AUTOMATION: DECISION AID OR DECISION MAKER 04/11/1997 - 09/30/1997 FY98: \$0 Total: \$131,240 <i>Prin. Invest.:</i> L J SKITKA <i>Tech. Officer:</i> ARC/M M CONNORS <i>CASE Category:</i> 69 - PSYCHOLOGY, OTHER | NAG 1 613 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4545 CENTER OF EXCELLENCE IN AEROSPACE COMPUTING RESEARCH AND TECHNOLOGY 08/26/1985 - 06/30/1998 FY98: \$200,001 Total: \$6,827,504 <i>Prin. Invest.:</i> R F IYER, J K W-S LIU <i>Tech. Officer:</i> LARC/K A SMITH <i>CASE Category:</i> 22 - COMPUTER SCIENCE |
| NGT 51688 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4538 GRAD STUD RES PROG 08/07/1996 - 07/31/1997 FY98: -\$22,000 Total: \$0 <i>Prin. Invest.:</i> M Y CHOI <i>Tech. Officer:</i> HQ/G LESANE <i>CASE Category:</i> 46 - MECHANICAL ENGR | NAG 1 1659 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4546 ANALYSES OF SCENARIOS FOR PAST AND POSSIBLE FUTURE AIRCRAFT EMISSIONS 12/09/1994 - 09/30/1997 FY98: \$0 Total: \$183,256 <i>Prin. Invest.:</i> D J WUEBBLES <i>Tech. Officer:</i> LARC/D L MAIDEN <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NGT 3 52300 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4539 GRADUATE STUDENT RESEARCH PROGRAM 08/21/1995 - 08/20/1998 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> C MEGARIDIS <i>Tech. Officer:</i> LERC/L SHAW <i>CASE Category:</i> 46 - MECHANICAL ENGR | NAG 1 1861 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4547 DEVELOPMENT OF ADVANCED LASER DIODE SOURCES FOR REMOTE SENSING APPLICATIONS 08/01/1996 - 07/31/1997 FY98: -\$799 Total: \$39,201 <i>Prin. Invest.:</i> J J SOLEMAN, G C PAPAN <i>Tech. Officer:</i> LARC/C J MAGEE, LARC/J C BARNES <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NGT 3 52322 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4540 GRADUATE STUDENT RESEARCHERS PROGRAM 09/11/1996 - 08/31/1999 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> M Y CHOI <i>Tech. Officer:</i> LERC/F MONTEGANI <i>CASE Category:</i> 46 - MECHANICAL ENGR | NAG 2 1031 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4548 DUCTILE TEARING OF SURFACE CRACKS: COMPUTATIONAL PROCEDURES & APPLICATIONS 03/08/1996 - 02/28/1999 FY98: \$0 Total: \$99,054 <i>Prin. Invest.:</i> R H DODDS, JR. <i>Tech. Officer:</i> ARCT/L PANONTIN <i>CASE Category:</i> 47 - METAL & MATERIALS ENGR |
| NGT 3 52337 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4541 GRADUATE STUDENT RESEARCHERS PROGRAM 06/19/1997 - 07/31/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> C MEGARIDIS <i>Tech. Officer:</i> LERC/F MONTEGANI <i>CASE Category:</i> 46 - MECHANICAL ENGR | NAG 2 1067 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4549 A STUDY OF PHOTON-DOMINATED REGIONS IN REFLECTION NEBULAE 07/18/1996 - 08/1/1998 FY98: \$0 Total: \$25,672 <i>Prin. Invest.:</i> M MEIXNER, NONE <i>Tech. Officer:</i> ARC/L QUARF, ARC/C B WILTSEE <i>CASE Category:</i> 11 - ASTRONOMY |
| NGT 5 50155 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4542 MODELLING OF SOOTING AND RADIATION EFFECTS IN DROP SAMUEL MANZELLO 09/11/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> M CHOI <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER | NAG 2 1120 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4550 SEAMLESS DISPLAYS FOR AIRCRAFT LANDING 03/27/1997 - 10/14/1998 FY98: \$77,000 Total: \$156,757 <i>Prin. Invest.:</i> C D WICKENS <i>Tech. Officer:</i> ARCT/D C FOYLE <i>CASE Category:</i> 39 - PSYCHOLOGY, OTHER |
| NGT 5 50214 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4543 EXPERIMENTAL INVESTIGATION OF ENVIRONMENT OXYGEN CONTENT IN SOLDER JET TECHNOLOGY (STUDENT: ERIC) 07/22/1998 - 07/31/2001 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> C M MEGARIDIS <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 46 - MECHANICAL ENGR | NAG 2 1126 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4551 ADVANCEMENTS IN 3-D NUMERICAL MODELING OF DUCTILE FRACTURE 04/11/1997 - 09/30/1998 FY98: \$144,812 Total: \$289,362 <i>Prin. Invest.:</i> R H DODDS, JR. <i>Tech. Officer:</i> ARCT/R W HAMPTON, ARCT/J C NEWMAN, JR. <i>CASE Category:</i> 46 - MECHANICAL ENGR |
| NGT 8 52867 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4544 PLASMA ASSISTED BINDER BURNOUT 07/27/1998 - 08/13/2000 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> A FRIDMAN <i>Tech. Officer:</i> MSFC/J F DOWDY <i>CASE Category:</i> 47 - METAL & MATERIALS ENGR | NAG 2 1224 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4552 ATTENTION BASE SITUATION AWARENESS SUPPORT FOR ROTORCRAFT OPERATIONS 07/23/1998 - 01/14/1999 FY98: \$65,816 Total: \$65,816 <i>Prin. Invest.:</i> C D WICKENS <i>Tech. Officer:</i> ARCT/S G HART, ARCT/R J SHIVELY <i>CASE Category:</i> 19 - PSYCHOLOGY, OTHER |

NAG 2 1250 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4553**
APPLICATION/SYSTEM ZOS INNERFACE CAPABILITIES
 08/14/1998 – 06/30/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: K NAHRSTEDT
Tech. Officer: ARC/K A FREEMAN, ARC/B H WHITAKER
CASE Category: 22 – COMPUTER SCIENCE

NAG 3 1704 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4554**
MODELING OF MICROGRAVITY COMBUSTION EXPERIMENTS – PHASE II
 03/16/1995 – 11/30/1998 FY98: \$70,000 Total: \$278,000
Prin. Invest.: J D BUCKMASTER
Tech. Officer: LERC/S GOKOGLU
CASE Category: 21 – MATHEMATICS

NAG 3 1926 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4555**
PREDICTION OF MACROSCOPIC PROPERTIES IN LIQUID HELIUM FROM COMPUTER SIMULATION
 07/19/1996 – 07/21/2000 FY98: \$97,000 Total: \$235,000
Prin. Invest.: D M CEPERLEY, N GOLDENFIELD
Tech. Officer: LERC/B S SINGH
CASE Category: 13 – PHYSICS

NAG 3 1983 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4556**
DEVELOPMENT OF A SHAPE OPTIMIZATION TOOL FOR TRANSONIC COMPRESSORS BASED ON NAVIER STOKES PHYSICS
 11/04/1996 – 10/31/1999 FY98: \$44,715 Total: \$88,776
Prin. Invest.: K D LEE
Tech. Officer: LERC/E R MCFARLAND, LERC/J R WOOD
CASE Category: 41 – AERONAUTICAL ENGINEERING

NAG 3 1988 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4557**
A STUDY OF ICE ACCRETION PHYSICS TO IMPROVE THE PREDICTION OF ICE ACCRETION ON AIRCRAFTS
 11/15/1996 – 11/07/1999 FY98: \$70,770 Total: \$166,150
Prin. Invest.: M B BRAGG
Tech. Officer: LERC/D N ANDERSON
CASE Category: 41 – AERONAUTICAL ENGINEERING

NAG 3 2122 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4558**
FLUID PHYSICS OF FOAM EVOLUTION AND FLOW FLUID PHYSICS OF FOAM EVOLUTION AND FLOW
 02/13/1998 – 01/06/2002 FY98: \$80,627 Total: \$80,627
Prin. Invest.: H AREF
Tech. Officer: LERC/B S SINGH
CASE Category: 46 – MECHANICAL ENGINEERING

NAG 3 2135 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4559**
SMART ICING SYSTEMS SMART ICING SYSTEMS
 03/05/1998 – 11/25/1998 FY98: \$200,000 Total: \$200,000
Prin. Invest.: M B BRAGG, P G VOUGARIS, N B SURTER
Tech. Officer: LERC/T H BOND, LERC/M G PETAPCZUK
CASE Category: 41 – AERONAUTICAL ENGINEERING

NAG 5 1900 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4560**
DIFFUSE SOFT X-RAY EMISSION FROM THE DUMBBELL NEBULA (NGC6853)?!
 02/20/1992 – 03/31/1998 FY98: \$0 Total: \$162,950
Prin. Invest.: Y H CHU
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 2040 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4561**
EOSDIS VERSION 0 STANDARD DATA FORMAT SUPPORT
 07/16/1992 – 07/31/1999 FY98: \$75,000 Total: \$1,247,241
Prin. Invest.: M FOLK
Tech. Officer: GSFC/C CARLISLE
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 2244 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4562**
INTELLIGENT COMMAND AND CONTROL SYSTEM FOR SATELLITE GROUND OPERATIONS
 04/14/1993 – 04/14/1998 FY98: \$0 Total: \$144,404
Prin. Invest.: P M JONES
Tech. Officer: GSFC/A W STOFFEL
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 2667 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4563**
ADAPTIVE PARALLEL METHODS FOR REACTIVE FLUID DYNAMICS AND PARTICLE DYNAMICS
 08/01/1994 – 07/31/1998 FY98: \$0 Total: \$90,000
Prin. Invest.: D BALSARA
Tech. Officer: GSFC/J R FISCHER
CASE Category: 11 – ASTRONOMY

NAG 5 2746 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4564**
INTERCOMPARISON OF WIND AND TEMPERATURE MEASURED BY UARS AND BY UNIV. OF ILLINOIS NA WIND/TEMP.LIDA
 10/06/1994 – 06/30/1997 FY98: \$0 Total: \$165,681
Prin. Invest.: X TAO
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2925 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4565**
THEORETICAL STUDIES OF X-RAY AND GAMMA RAY EMISSION BY NEUTRON STARS, WHITE DWARF AND BLACK..
 03/22/1995 – 03/31/1999 FY98: \$115,500 Total: \$335,500
Prin. Invest.: F K LAMB
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 2988 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4566**
SNR AND STELLAR WIND HEATING OF SUPERBUBBLES
 06/28/1995 – 01/14/1998 FY98: \$0 Total: \$47,773
Prin. Invest.: Y CHU
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3099 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4567**
A SYSTEMATIC STUDY OF EXPLOSIONS IN CORE COLLAPSE SUPERNOVAE
 10/05/1995 – 10/14/1997 FY98: \$0 Total: \$400,000
Prin. Invest.: F D SWESTY
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3246 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4568**
A COMPREHENSIVE INVESTIGATION OF THE STRUCTURING OF THE INTERSTELLAR MEDIUM BY MASSIVE STARS
 05/29/1996 – 04/30/1999 FY98: \$90,000 Total: \$150,000
Prin. Invest.: Y CHU
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3350 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4569**
ISO GUEST OBSERVER SUPPORT FOR DATA ANALYSIS
 08/09/1996 - 08/14/1999 FY98: \$0 Total: \$89,420
Prin. Invest.: M MELXNER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3420 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4570**
ASTROPHYSICAL STUDIES OF COMPACT STARS ON THE SUPERCOMPUTER
 10/01/1996 - 09/30/1998 FY98: \$0 Total: \$76,000
Prin. Invest.: S L SHAPIRO
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3552 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4571**
ANALYSIS AND DEVELOPMENT OF DIODE BASED LASER SYSTEMS FOR REMOTE SENSING
 12/09/1997 - 11/30/1997 FY98: \$0 Total: \$53,914
Prin. Invest.: G C PAPEN, J J COLEMAN
Tech. Officer: GSFC/J R RALL, GSFC/J B ABSHIRE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3661 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4572**
THE LAND SURFACE COMPONENT OF THE CLIMATE SYSTEM:
 12/19/1996 - 12/14/1997 FY98: \$0 Total: \$150,245
Prin. Invest.: P KUMAR
Tech. Officer: GSFC/R D KOSTER, GSFC/E T ENGMAN
CASE Category: 11 - ASTRONOMY

NAG 5 3923 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4573**
RADIATION HYDRODYNAMICS AND THE CHEMICAL
 02/19/1997 - 02/14/1999 FY98: \$77,600 Total: \$151,480
Prin. Invest.: M L NORMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4044 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4574**
ASSESSING THE ROLE OF COUPLING BETWEEN CHEMISTRY AND
 03/17/1997 - 12/31/1998 FY98: \$95,000 Total: \$190,176
Prin. Invest.: D J WUEBGLES
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4228 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4575**
ACCESSING SPACE SCIENCE DATA USING THE INTERNET
 04/14/1997 - 03/31/1999 FY98: \$150,000 Total: \$320,000
Prin. Invest.: M MCGRATH
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4292 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4576**
RADIO INTERFEROMETRIC STUDIES OF COMETS
 04/15/1997 - 12/31/1998 FY98: \$41,667 Total: \$91,667
Prin. Invest.: D E SNYDER
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4414 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4577**
"MODELING STUDIES TO REDUCE UNCERTAINTIES IN EVALUATING AIRCRAFT EFFECTS ON THE GLOBAL ATMOSPHERE"
 05/06/1997 - 04/10/1999 FY98: \$62,518 Total: \$122,518
Prin. Invest.: D J NUEBBLES
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4421 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4578**
FAST SPECTROSCOPY OF Z SOURCES: CONTINUED MONITORING FROM GRO J1744-28; FAST TIMING AND SPECTROSCOPY OF
 05/30/1997 - 05/31/1998 FY98: \$20,500 Total: \$0
Prin. Invest.: F LAMB
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4500 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4579**
CELLULAR EVOLUTION & THE STRUCTURE OF THE ARCHAEAL
 05/06/1997 - 12/31/1998 FY98: \$133,870 Total: \$270,530
Prin. Invest.: D R NOESE
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIRONMENTAL)

NAG 5 4732 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4580**
FAST TIMING OF Z SOURCES \$10,000 AND FAST TIMING OF A SOURCES \$20,000
 06/04/1997 - 06/14/1998 FY98: \$30,000 Total: \$0
Prin. Invest.: F LAMB
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4793 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4581**
ROSAT HRI IMAGE OF THE EXTREMELY METAL-DEFICIENT ROSAT HRI IMAGE OF BARRED GALAXIES.
 06/19/1997 - 06/30/1998 FY98: \$0 Total: \$4,900
Prin. Invest.: D BC MANS
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4858 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4582**
REMOTE SENSING OF CANOPY PROPERTIES FOR A FOREST CO2 ENRICHMENT
 07/08/1997 - 05/31/1999 FY98: \$112,086 Total: \$214,385
Prin. Invest.: D DE LUCA
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 19 - ENVIRONMENTAL SCI, OTHER

NAG 5 4863 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4583**
HRI SURVEY OF THE LARGE MAGNELLANIC CLOUD
 06/17/1997 - 05/31/1998 FY98: \$0 Total: \$14,099
Prin. Invest.: Y CH J
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 5087 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4584**
INTERFEROMETRIC RADAR OBSERVATIONS OF MID-LATITUDE SPORADIC-ECHOES
 06/25/1996 - 05/31/1999 FY98: \$40,000 Total: \$170,000
Prin. Invest.: F KUIHEKI
Tech. Officer: GSFC/L W GURKIN
CASE Category: 13 - PHYSICS

NAG 5 6723 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4585**
SUPPORT FOR LARGE DATA SET IN EOSDIS
 12/12/1997 – 06/30/1999 FY98: \$282,600 Total: \$282,600
Prin. Invest.: M FOLK
Tech. Officer: GSFC/R KREIDER
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 6781 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4586**
ILLINOIS CENTER FOR AGRICULTURAL GEOGRAPHIC EXCELL ENCE (ILCAGE)
 01/15/1998 – 01/14/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: M HIRSCH
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6836 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4587**
ATMOSPHERIC FORCING OF GREENLAND ICE SHEET
 01/08/1998 – 12/31/1998 FY98: \$95,665 Total: \$95,665
Prin. Invest.: J WALSH
Tech. Officer: GSFC/S GOGINENI
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7003 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4588**
ENERGETICS OF SUPERNOVA REMNANTS
 02/09/1998 – 01/31/1999 FY98: \$63,000 Total: \$63,000
Prin. Invest.: Y CHU
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7152 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4589**
ROTATING AND BINARY NEUTRON STARS IN GENERAL RELATIVITY – ATP
 03/05/1998 – 03/14/1999 FY98: \$55,000 Total: \$55,000
Prin. Invest.: S L SHAPIRO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7170 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4590**
CHARACTERIZING MULTISCALE INTERACTION OF HYDROLOGIC PROCESSES USING MULTISENSOR SATELLITE DATA
 03/30/1998 – 12/31/1999 FY98: \$113,658 Total: \$113,658
Prin. Invest.: P KUMAR
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7404 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4591**
MODELLING X-RAY CLUSTERS: EVOLUTION AND REALISTIC PHYSICS
 05/15/1998 – 05/31/2000 FY98: \$32,217 Total: \$32,217
Prin. Invest.: M L NORMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7692 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4592**
HIGH-POWER DOUBLE-CLAD FIBERS FOR WATER VAPOR SENSING
 09/18/1998 – 09/30/1999 FY98: \$15,000 Total: \$15,000
Prin. Invest.: G PAPPEN
Tech. Officer: GSFC/M KRAINAK
CASE Category: 45 – ELECTRICAL ENGR

NAG 8 1249 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4593**
ADAPTIVE GRID METHODS FOR PHASE FIELD MODELS OF MICROSTRUCTURE DEVELOPMENT
 04/16/1996 – 04/15/2000 FY98: \$96,000 Total: \$276,000
Prin. Invest.: J A DANTZIG
Tech. Officer: MSFC/C TALLEY, MSFC/R W ALLEN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1376 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4594**
R/S "PARTICLE INTERACTION POTENTIALS & PROTEIN CRYSTAL QUALITY UNDER DR. CHARLES F. ZUKOSKI"
 07/01/1997 – 12/30/1998 FY98: \$125,000 Total: \$196,000
Prin. Invest.: C F ZOKOSKI
Tech. Officer: MSFC/J R ROGERS, MSFC/J P DOWNEY
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 8 1453 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4595**
MODELS OF MAGNETIC DAMPING FOR BRIDGMAN SEMI- CONDUCTOR CRYSTAL GROWTH
 05/20/1998 – 01/31/2002 FY98: \$66,667 Total: \$66,667
Prin. Invest.: J S WALKER
Tech. Officer: MSFC/C TALLEY
CASE Category: 13 – PHYSICS

NAG 8 1471 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4596**
COLLOIDAL STABILITY IN COMPLEX FLUIDS
 04/23/1998 – 01/31/2002 FY98: \$73,333 Total: \$73,333
Prin. Invest.: J A LEWIS
Tech. Officer: MSFC/C TALLEY
CASE Category: 13 – PHYSICS

NAGW 1131 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4597**
RADIO ASTRONOMICAL STUDIES OF COMETS
 07/01/1987 – 12/31/1996 FY98: \$0 Total: \$491,280
Prin. Invest.: L E SNYDER
Tech. Officer: HQ/H C BRINTON, HQ/J H RAHE
CASE Category: 11 – ASTRONOMY

NAGW 2554 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4598**
NAGW-2554/UNIV ILLINOIS/ARCHAEBACTERIA AND THE EVOLUTION OF THE CELL
 06/10/1991 – 12/31/1996 FY98: \$0 Total: \$734,324
Prin. Invest.: C R WOESE
Tech. Officer: HQ/J D RUMMEL
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAGW 4724 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4599**
DETERMINATION OF AN INFRARED REFERENCE FRAME
 08/28/1995 – 08/31/1997 FY98: -\$270 Total: \$33,865
Prin. Invest.: E C SUTTON
Tech. Officer: HQ/R A STACHNIK
CASE Category: 11 – ASTRONOMY

NAGW 5247 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4600**
CHARACTERIZING MULTISCALE INTERACTION OF HYDROLOGIC PROCESSES USING MULTISENSOR SATELLITE DATA
 10/18/1996 – 06/30/1998 FY98: \$0 Total: \$141,095
Prin. Invest.: P LUMAR
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAS 1 19950 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4601**
SCIENCE SUPPORT TO THE LITE SCIENCE TEAM
 05/19/1993 - 11/18/1999 FY98: \$0 Total: \$291,137
Prin. Invest.: C S GARDNER
Tech. Officer: LARC/G L MADDREA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 3 97011 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4602**
NRA SWITCH FROM GRANT TO CONTRACT-SIMULATION OF ICING CLOUDS ON TEST MODELS
 02/25/1997 - 08/01/2000 FY98: \$45,063 Total: \$85,068
Prin. Invest.: E LOTH
Tech. Officer: LERC/T B IRVINE
CASE Category: 41 - AERONAUTICAL ENGR

NCA 3 110 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4603**
JOINT SPONSORED RESEARCH AGREEMENT ICING RESEARCH
 02/22/1996 - 12/31/1998 FY98: \$98,000 Total: \$205,800
Prin. Invest.: M BRAGG
Tech. Officer: LERC/T H BOND
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 309 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4604**
EVAL PEM-TROPICS B OBSERVAT: UNCERTAIN ANALYSES & EFFECTS ON DEEP CONVECTIVE MIX'G ON TROPOSPH CHEM
 07/22/1998 - 07/31/1998 FY98: \$53,000 Total: \$53,000
Prin. Invest.: R KOTAMARTHL, DWUEBBLES
Tech. Officer: LARC/J MHOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 3 509 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4605**
THE EFFECT OF THE CRITICAL ICE ACCRETION ON AIRFOIL & WING PERFORMANCE
 10/25/1996 - 10/24/1999 FY98: \$53,936 Total: \$104,385
Prin. Invest.: M S SELIG, M B BRAGG
Tech. Officer: LERC/H E ADDY, JR.
CASE Category: 41 - AERONAUTICAL ENGR

NCC 5 106 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4606**
DIGITAL LIBRARY
 09/22/1994 - 09/22/1998 FY98: \$0 Total: \$2,146,302
Prin. Invest.: M FOLK
Tech. Officer: GSFC/N LAL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 153 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4607**
GRAND CHALLENGE RESEARCH
 08/30/1996 - 08/30/1999 FY98: \$349,000 Total: \$1,198,000
Prin. Invest.: P SAYLOR
Tech. Officer: GSFC/J R FISCHER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 8 90 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4608**
RESEARCH "MODELS OF MAGNETIC DAMPING FOR SEMICONDUCTOR CRYSTAL GROWTH IN MICROGRAVITY"
 04/22/1996 - 04/21/1998 FY98: \$50,000 Total: \$200,000
Prin. Invest.: J S WALKER
Tech. Officer: MSFC/C R TALLEY, MSFC/R W ALLEN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 40017 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4609**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 04/03/1991 - 01/31/1998 FY98: \$0 Total: \$2,319,483
Prin. Invest.: K R JIVIER
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 19 - MULTI INTERDISCIPL, OTHER

NGT 51386 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4610**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/16/1995 - 06/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: W D NASTON
Tech. Officer: HQ/D J HOLLAND
CASE Category: 3 - PHYSICS

NGT 51392 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4611**
GSRP
 07/31/1995 - 06/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: A J PEARLSTEIN
Tech. Officer: HQ/K LESANE
CASE Category: 46 - MECHANICAL ENGR

NGT 51399 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4612**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/26/1995 - 06/30/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: D A REED
Tech. Officer: JPL/C K HICKS
CASE Category: 22 - COMPUTER SCIENCE

NGT 70374 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4613**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 08/22/1994 - 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: R B HUBER
Tech. Officer: HQ/D K RUSSELL
CASE Category: 41 - MECHANICAL ENGR

NGT 2 52229 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4614**
OPTIMUM FORMULATIONS FOR LES
 08/18/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: R D MUSER
Tech. Officer: ARC/L A WRAY
CASE Category: 41 - MECHANICAL ENGR

NGT 2 52231 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4615**
ADAPTIVE DYNAMIC SCHEDULING OF WIDE AREA COMPUTATIONS BASED ON ROBUST ACQUISITION OF DISTRIBUTED...
 08/28/1997 - 07/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: D A REED
Tech. Officer: ARC/L G STEVENS, ARC/C H SCHULBACH
CASE Category: 22 - COMPUTER SCIENCE

NGT 2 52244 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4616**
NON-LINEAR ALFVEN WAVES, AMBIPOLAR DIFFUSION & STARR FORMATION
 08/05/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: T MOUNCHOVIAS
Tech. Officer: ARC/A BARNES
CASE Category: 11 - ASTRONOMY

NGT 3 52308 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4617**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/25/1995 - 09/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: M B BRAGG
Tech. Officer: LERC/L SHAW
CASE Category: 46 - MECHANICAL ENGR

NGT 3 52345 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4618**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/28/1998 - 08/20/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J S MOORE
Tech. Officer: LERC/F J MONTEGANI
CASE Category: 43 - CHEMICAL ENGR

NGT 5 12 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4619**
TUNABLE MULTIPLE WAVELENGTH SEMICONDUCTOR LASERS FOR OPTICAL REMOTE SENSING SYSTEMS
 07/11/1995 - 07/14/1997 FY98: \$22,000 Total: \$66,000
Prin. Invest.: G C PAPPEN
Tech. Officer: GSFC/G A SOFFEN, GSFC/M A KRAINAK
CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 5 14 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4620**
NARROW-BAND SURFACE PHOTOMETRY OF GALAXIES
 07/15/1996 - 06/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: L A THOMPSON
Tech. Officer: GSFC/G A SOFFEN, GSFC/B WOODGATE
CASE Category: 11 - ASTRONOMY

NGT 5 73 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4621**
CONTINUATION OF GSRP GRANT ON "HIGH POWER DIAL LID AR FOR THE REMOTE SENSING OF WATER VAPOR ON E
 06/05/1998 - 07/14/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: G C PAPPEN
Tech. Officer: GSFC/G A SOFFEN
CASE Category: 45 - ELECTRICAL ENGR

NGT 5 30041 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4622**
CHARACTERIZING CLIMATIC SIGNATURES IN HYDRO-GEOMOR
 10/17/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: P KUMAR
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40030 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4623**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 12/19/1996 - 01/31/1999 FY98: \$499,881 Total: \$879,881
Prin. Invest.: W C SOLOMON
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50034 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4624**
N-DIMENSIONAL QUADRATICALLY NONLINEAR CONTROL-ORIE RFACE FLOWS, CONSTR.(M LESS THAN N MEASURED TIME)
 08/04/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: A PEARLSTEIN
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50149 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4625**
THEORY AND INTERPRETATION OF MASERS IN DISKS FOR S GSRP RECIPIENT: WALLIN BRADLEY
 09/10/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D W WATSON
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52827 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4626**
GRAD STUDENT RESEARCH PROGRAM FOR TIMOTHY MORTHAND
 09/20/1996 - 06/30/1999 FY98: \$0 Total: \$44,000
Prin. Invest.: T E MORTHAND
Tech. Officer: MSFC/F SZOFRAN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 9 4 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4627**
ADAPTION OF GENETIC ALGORITHMS TO NOISY ENVIRONMEN TS
 05/31/1995 - 06/30/1997 FY98: -\$1,333 Total: \$42,667
Prin. Invest.: D E GOLDBERG
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 22 - COMPUTER SCIENCE

NGT 9 33 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **4628**
TRAINING GRANT
 06/04/1998 - 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: S R WHITE
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 8 1207 WESTERN ILLINOIS UNIVERSITY **4629**
JOVE
 09/25/1995 - 05/31/1999 FY98: \$0 Total: \$30,504
Prin. Invest.: L H TICHENOR
Tech. Officer: MSFC/D SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

INDIANA

NAG13 34 INDIANA STATE UNIVERSITY **4630**
REMOTE SENSING TECHNOLOGY TRANSFER TO GRADES K-12 WITH A FOCUS ON PREPARATION FOR SSTPINITIATIVE
 09/22/1995 - 11/24/1998 FY98: \$74,992 Total: \$547,896
Prin. Invest.: P MAUSEL
Tech. Officer: SSC/B DAVIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4917 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS **4631**
MODULATION OF BONE REMODELING VIA MECHANICALLY-ACT
 07/18/1997 - 11/15/1998 FY98: \$0 Total: \$118,884
Prin. Invest.: D DUNCAN
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 50203 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS **4632**
PARATHYROID HORMONE MODULATES THE RESPONSE OF OSTE OBLAST-LIKE CELLS TO MECHANICAL STIMULATION
 07/01/1998 - 06/30/2001 FY98: \$19,600 Total: \$19,600
Prin. Invest.: R L DUCN
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 1941 INDIANA UNIVERSITY – BLOOMINGTON **4633**
APPLICATION OF GLOBAL POSITIONING SYSTEM MEASUREMENTS TO CONTINENTAL COLLISION IN THE PAMIR-TIEN.
 03/12/1992 – 03/31/1998 FY98: \$0 Total: \$318,100
Prin. Invest.: M W HAMBURGER
Tech. Officer: GSFC/B G BILLS
CASE Category: 11 – ASTRONOMY

NAG 5 2781 INDIANA UNIVERSITY – BLOOMINGTON **4634**
SIMULATIONS OF GLOBULAR CLUSTER, GALACTIC NUCLEUS, AND GALAXY CLUSTER DYNAMICAL EVOLUTION
 11/07/1994 – 01/14/1999 FY98: \$0 Total: \$282,800
Prin. Invest.: H N COHN
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3283 INDIANA UNIVERSITY – BLOOMINGTON **4635**
ACCRETION MONITORING DURING THE SUPERCYCLE OF V1159 ORI
 07/02/1996 – 01/31/1998 FY98: \$0 Total: \$10,977
Prin. Invest.: R K HONEYCUTT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4295 INDIANA UNIVERSITY – BLOOMINGTON **4636**
3D SIMULATIONS OF GRAVITATIONAL INSTABILITIES IN PROTOSTELLAR DISKS
 04/04/1997 – 12/31/1998 FY98: \$0 Total: \$35,000
Prin. Invest.: D H DURISEN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4342 INDIANA UNIVERSITY – BLOOMINGTON **4637**
SIMULATIONS OF BALLISTIC TRANSPORT IN SATURN'S RING
 04/21/1997 – 04/30/1999 FY98: \$19,006 Total: \$51,994
Prin. Invest.: D H DURISEN
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4409 INDIANA UNIVERSITY – BLOOMINGTON **4638**
ACCRETION GEOMETRY AND EMISSION SITES IN THE ECLIPSE OBJECTS
 05/12/1997 – 05/14/1999 FY98: \$0 Total: \$30,877
Prin. Invest.: T STEIMAN-CAMERON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4618 INDIANA UNIVERSITY – BLOOMINGTON **4639**
PETROLOGIC EVOLUTION OF LUNAR AND METEORITE PARENT
 05/19/1997 – 02/28/1999 FY98: \$30,000 Total: \$60,000
Prin. Invest.: D BASU
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 5058 INDIANA UNIVERSITY – BLOOMINGTON **4640**
HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) FUNDING FOR THE FIRST YEAR OF RESEARCH
 05/01/1996 – 11/30/1998 FY98: \$168,000 Total: \$464,000
Prin. Invest.: J MUSSER
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5167 INDIANA UNIVERSITY – BLOOMINGTON **4641**
GPS MEASUREMENTS OF LOCALIZED DEFORMATION IN THE T
 07/17/1997 – 07/14/1999 FY98: \$25,000 Total: \$56,000
Prin. Invest.: M W HAMBURGER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 5194 INDIANA UNIVERSITY – BLOOMINGTON **4642**
TECHNOLOGY DEVELOPMENT FOR HIGH-RESOLUTION GAMMA-RAY SPECTROSCOPY
 05/19/1998 – 04/10/2000 FY98: \$50,000 Total: \$50,000
Prin. Invest.: R E PEHL
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 6406 INDIANA UNIVERSITY – BLOOMINGTON **4643**
XTE OBSERVATIONS OF INTERMEDIATE POLARS
 10/10/1997 – 10/4/1998 FY98: \$7,526 Total: \$7,526
Prin. Invest.: K HONEYCUTT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 6702 INDIANA UNIVERSITY – BLOOMINGTON **4644**
CENTER OF EXCELLENCE IN APPLICATIONS OF REMOTE SENSING TO REGIONAL AND GLOBAL INTEGRATED ENVIRONMENT
 12/16/1997 – 10/31/1998 FY98: \$332,180 Total: \$332,180
Prin. Invest.: J RANDOLPH
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6773 INDIANA UNIVERSITY – BLOOMINGTON **4645**
COBE AND THE STRUCTURE OF THE GALACTIC INTERSTELLAR MEDIUM
 01/22/1998 – 01/31/1999 FY98: \$40,100 Total: \$40,100
Prin. Invest.: STEIMAN-CAMERON
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6884 INDIANA UNIVERSITY – BLOOMINGTON **4646**
MONITORING THE ACCRETION OF TWO OLD NOVAE
 02/06/1998 – 01/31/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: K HONEYCUTT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7491 INDIANA UNIVERSITY – BLOOMINGTON **4647**
XTE PROPOSAL (30011) – COORDINATED X-RAY/OPTICAL OBSERVATIONS OF ECLIPSING AN HERCULIS OBJECT
 06/29/1998 – 06/30/1999 FY98: \$10,234 Total: \$10,234
Prin. Invest.: T STEIMAN-CAMERON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7514 INDIANA UNIVERSITY – BLOOMINGTON **4648**
SIMULATIONS OF INSTABILITIES IN PROTOSTELLAR DISKS AND OTHER STARFORMATION STUDIES
 05/29/1998 – 06/30/1999 FY98: \$15,000 Total: \$15,000
Prin. Invest.: D DURISEN
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7619 INDIANA UNIVERSITY - BLOOMINGTON **4649**
FUNDING FOR "LITHOSPHERIC RHEOLOGY AND GEODYNAMIC PROCESSES FROM INTEGRATION OF GEODETIC, GRAVITY AND
 07/24/1998 - 08/31/1999 FY98: \$25,000 Total: \$25,000
Prin. Invest.: M W HAMBURGER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 1035 INDIANA UNIVERSITY - BLOOMINGTON **4650**
SUPERCONDUCTING MAGNET INSTRUMENT
 02/15/1987 - 11/30/1996 FY98: -\$32,403 Total: \$884,597
Prin. Invest.: R M HEINZ
Tech. Officer: HQ/M M MELLOTT, HQ/W V JONES
CASE Category: 13 - PHYSICS

NAGW 3399 INDIANA UNIVERSITY - BLOOMINGTON **4651**
NUMERICAL 3D SIMULATIONS OF GRAVITATIONAL INSTABILITIES IN PROTOSTELLAR DISKS AND THE NEBULA
 03/15/1993 - 06/30/1997 FY98: \$0 Total: \$156,878
Prin. Invest.: R DURISON
Tech. Officer: HQ/J A NUTH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3404 INDIANA UNIVERSITY - BLOOMINGTON **4652**
PETROLOGIC EVOLUTION OF LUNAR AND METEORITE PARENT BODY REGOLITH
 02/23/1993 - 09/15/1997 FY98: \$0 Total: \$118,965
Prin. Invest.: A BASU
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3718 INDIANA UNIVERSITY - BLOOMINGTON **4653**
TECHNOLOGY DEVELOPMENT FOR HIGH RESOLUTION GAMMA-RAY SPECTROSCOPY
 10/22/1993 - 09/30/1997 FY98: \$0 Total: \$200,000
Prin. Invest.: D FRIESEL, NONE
Tech. Officer: HQ/L J KALUZIENSKI, HQ/A N BUNNER
CASE Category: 11 - ASTRONOMY

NAGW 4587 INDIANA UNIVERSITY - BLOOMINGTON **4654**
SIMULATIONS OF BALLISTIC TRANSPORT IN SATURN'S RINGS
 07/06/1995 - 06/30/1997 FY98: -\$213 Total: \$64,851
Prin. Invest.: R DURISEN
Tech. Officer: HQ/H BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 4638 INDIANA UNIVERSITY - BLOOMINGTON **4655**
MODULATION OF BONE REMODELLING VIA MECHANICALLY ACTIVATED ION CHANNELS
 07/11/1995 - 11/30/1997 FY98: -\$4,284 Total: \$260,735
Prin. Invest.: R L DUNCAN
Tech. Officer: HQ/V THORNE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4730 INDIANA UNIVERSITY - BLOOMINGTON **4656**
MECHANISM OF PHYTOCHROME REGULATION OF SHOOT GRAVITROPISM IN ARABIDOPSIS
 09/05/1995 - 06/30/1997 FY98: \$0 Total: \$164,000
Prin. Invest.: D P HANGARTER
Tech. Officer: HQ/V SCHEIDER, HQ/V THORNE
CASE Category: 43 - CHEMICAL ENGR

NCC 2 594 INDIANA UNIVERSITY - BLOOMINGTON **4657**
CELL KINETIC AND HISTOMORPHOMETRIC ANALYSIS OF MICROGRAVITATIONAL OSTEOPENIA
 03/15/1989 - 06/30/1997 FY98: -\$2,180 Total: \$528,562
Prin. Invest.: W E ROBERTS
Tech. Officer: ARC/E M HOLTON
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 870 INDIANA UNIVERSITY - BLOOMINGTON **4658**
SPACEFLIGHT EFFECTS ON MAMMALIAN DEVELOPMENT
 07/11/1994 - 05/31/1998 FY98: \$0 Total: \$718,713
Prin. Invest.: J R ALBERTS, A RONCA
Tech. Officer: ARC/D A REISS-BUBENHIEM, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 1028 INDIANA UNIVERSITY - BLOOMINGTON **4659**
EVOLUTION OF GRAVITATIONALLY UNSTABLE PROTOSTELLAR DISKS
 02/27/1998 - 02/28/1999 FY98: \$29,878 Total: \$29,878
Prin. Invest.: T Y STEIMAN-CAMERON
Tech. Officer: ARC/P M CASSEN
CASE Category: 11 - ASTRONOMY

NCC 2 1035 INDIANA UNIVERSITY - BLOOMINGTON **4660**
CASE-BASED CAPTURE & REUSE OF AEROSPACE DESIGN RATIONALE
 05/07/1998 - 09/30/1999 FY98: \$146,679 Total: \$146,679
Prin. Invest.: D B LEAKE
Tech. Officer: ARC/M E LIVINGSTON, ARC/W VAN DALSEM
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 334 INDIANA UNIVERSITY - BLOOMINGTON **4661**
HUMAN AND PHYSICAL DIMENSIONS OF LAND USE/COVER CHANGE IN ANAZONIA: FOREST REGENERATION AND LANDSCAPE
 06/16/1998 - 06/14/1999 FY98: \$168,257 Total: \$168,257
Prin. Invest.: E MORAN
Tech. Officer: GSFC/D DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30248 INDIANA UNIVERSITY - BLOOMINGTON **4662**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/22/1994 - 06/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: E E MORAN
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 51403 INDIANA UNIVERSITY - BLOOMINGTON **4663**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/30/1995 - 08/27/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: V E VIOLA
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 - PHYSICS

NGT 5 50162 INDIANA UNIVERSITY - BLOOMINGTON **4664**
STUDY OF THE DIFFERENCES BETWEEN THE RADIATION DAMAGE DETECTORS FABRICATED FROM N- AND P-TYPE GERMANIUM
 09/17/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: V E VIOLA
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

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| NAG 5 2612 INDIANA UNIVERSITY - SOUTH BEND 4665 MONITORING THE MOST MASSIVE STARS 2) MAGNETICALLY CONTROLLED CIRCUMSTELLAR MATTER AMONG 06/13/1994 - 12/31/1997 FY98: \$0 Total: \$47,300 Prin. Invest.: S N SHORE Tech. Officer: GSFC/D WEST CASE Category: 11 - ASTRONOMY | NAG 1 1794 PURDUE UNIVERSITY 4673 BOUNDARY-LAYER TRANSITION DETECTION IN CRYOGENIC WIND TUNNEL USING FLUORESCENT PAINT 01/23/1996 - 01/31/1999 FY98: \$21,988 Total: \$154,000 Prin. Invest.: J F SULLIVAN Tech. Officer: LARC/B T UPCHURCH, LARC/M MITCHELL CASE Category: 41 - AERONAUTICAL ENGR |
| NCC 3 317 MANCHESTER COLLEGE 4666 INTERCALATION OF GRAPHITE FIBERS FOR SPACE POWER APPLICATIONS 09/01/1993 - 02/13/1998 FY98: \$0 Total: \$106,218 Prin. Invest.: E G MILLER Tech. Officer: LERC/C HUNG CASE Category: 12 - CHEMISTRY | NAG 1 2109 PURDUE UNIVERSITY 4674 LASER SPOT HEATING SYSTEM FOR TRANSITION DETECTION IN CRYOGENIC WIND TUNNELS 09/14/1998 - 06/30/2000 FY98: \$25,000 Total: \$25,000 Prin. Invest.: J P SULLIVAN Tech. Officer: LARC/B T UPCHURCH, LARC/C J OBARA CASE Category: 41 - AERONAUTICAL ENGR |
| NCC 3 601 MANCHESTER COLLEGE 4667 INTERCALATION OF GRAPHITE FIBERS FOR SPACE POWER APPLICATIONS 03/12/1998 - 09/30/1998 FY98: \$10,005 Total: \$10,005 Prin. Invest.: G W CLARK Tech. Officer: LERC/C HUNG CASE Category: 47 - METAL & MATERIALS ENGR | NAG 2 854 PURDUE UNIVERSITY 4675 HIGH-LIFT AERODYNAMICS 07/16/1993 - 08/31/1997 FY98: \$0 Total: \$179,783 Prin. Invest.: J P SULLIVAN, S P SCHNEIDER Tech. Officer: ARC/D R SATRAN, ARC/D J KOGA CASE Category: 41 - AERONAUTICAL ENGR |
| NAG 1 157 PURDUE UNIVERSITY 4668 INTERACTIVE AIRCRAFT FLIGHT CONTROL AND AEROELASTIC STABILIZATION 02/26/1981 - 04/30/1997 FY98: -\$126 Total: \$808,267 Prin. Invest.: T A WEISSHAAR, D K SCHMIDT Tech. Officer: LARC/R C SCOTT CASE Category: 41 - AERONAUTICAL ENGR | NAG 2 1001 PURDUE UNIVERSITY 4676 HYPOGRAVITY'S EFFECT ON THE LIFE CYCLE OF JAPANESE QUAIL 08/23/1995 - 06/10/1998 FY98: \$0 Total: \$116,283 Prin. Invest.: P Y HESTER Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) |
| NAG 1 1323 PURDUE UNIVERSITY 4669 MODELLING DAMAGE PROGRESSION IN COMPOSITE LAMINATE D STRUCTURES 08/06/1991 - 05/31/1997 FY98: -\$19 Total: \$279,847 Prin. Invest.: C T SUN Tech. Officer: LARC/J T WANG, LARC/J M HOUSNER CASE Category: 46 - MECHANICAL ENGR | NAG 3 1291 PURDUE UNIVERSITY 4677 SUPPORT OF THE 10TH NATIONAL SYMPOSIUM OF AIR BREATHING ENGINES 07/31/1991 - 09/30/1998 FY98: \$0 Total: \$26,992 Prin. Invest.: S N MURTHY Tech. Officer: LERC/D N BOWDITCH CASE Category: 41 - AERONAUTICAL ENGR |
| NAG 1 1601 PURDUE UNIVERSITY 4670 DEVELOPMENT OF A METHODOLOGY FOR ANALYZING PROPULSION SYSTEM EFFECTIVENESS OVER A TRAJECTORY 03/14/1994 - 10/31/1997 FY98: -\$1 Total: \$164,004 Prin. Invest.: S N MURTHY Tech. Officer: LARC/J P WEIDNER, LARC/G Y ANDERSON CASE Category: 41 - AERONAUTICAL ENGR | NAG 3 1629 PURDUE UNIVERSITY 4678 TECHNICAL SUPPORT FOR THE PUBLICATION OF THE AEROSPACE STRUCTURAL METALS HANDBOOK 06/24/1994 - 03/04/1997 FY98: -\$8,749 Total: \$100,736 Prin. Invest.: H MIJDLIN Tech. Officer: LERC/J R REAGAN CASE Category: 47 - METAL & MATERIALS ENGR |
| NAG 1 1660 PURDUE UNIVERSITY 4671 USE OF KIRCHHOFF'S METHOD IN JET AEROACOUSTICS MY 1/3 12/21/1994 - 07/14/1997 FY98: -\$3 Total: \$84,398 Prin. Invest.: A S LYRINTZIO Tech. Officer: LARC/K R MENDOWS CASE Category: 41 - AERONAUTICAL ENGR | NAG 3 1730 PURDUE UNIVERSITY 4679 3-D UNSTEADY AERODYNAMICS AND AEROELASTICITY OF ADVANCED TURBOPROPS 02/01/1995 - 01/01/1999 FY98: \$52,691 Total: \$344,946 Prin. Invest.: S FLUETTER Tech. Officer: LERC/D H BUFFUM CASE Category: 41 - AERONAUTICAL ENGR |
| NAG 1 1749 PURDUE UNIVERSITY 4672 APPLICATION OF THE SPECTRAL ELEMENT METHOD TO INTERIOR NOISE PROBLEMS 08/11/1995 - 06/30/1998 FY98: \$1 Total: \$52,028 Prin. Invest.: J F DOYLE Tech. Officer: LARC/S A RIZZI CASE Category: 41 - AERONAUTICAL ENGR | NAG 3 1766 PURDUE UNIVERSITY 4680 HIGH REYNOLDS NUMBER EXPERIMENTS ON BYPASS DUCT AND STRICT FLOWS 07/14/1995 - 10/31/1998 FY98: \$93,693 Total: \$288,441 Prin. Invest.: S H COLLICOTT, J P SULLIVAN Tech. Officer: LERC/K J KACYNSKI CASE Category: 41 - AERONAUTICAL ENGR |

NAG 3 1782 PURDUE UNIVERSITY **4681**
INVESTIGATION OF NITRIC OXIDE PRODUCTION IN HIGH-P RESSURE
COUNTERFLOW DIFFUSION FLAMES BY LASER-IND
 08/23/1995 – 12/31/1998 FY98: \$49,979 Total: \$200,000
Prin. Invest.: N M LAURENDEAU
Tech. Officer: LERC/Y R HICKS
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1814 PURDUE UNIVERSITY **4682**
PRESSURE AND TEMPERATURE MEASUREMENT OF ROTATING MACHIN-
ERY USING FLUORESCENT PAINTS
 04/16/1996 – 04/15/1999 FY98: \$75,000 Total: \$195,000
Prin. Invest.: J P SULLIVAN
Tech. Officer: LERC/M P WERNET
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 1860 PURDUE UNIVERSITY **4683**
FORCED OSCILLATIONS OF PENDANT AND SESSIL DROPS
 06/03/1996 – 06/02/2000 FY98: \$70,000 Total: \$181,000
Prin. Invest.: D A BASARAN
Tech. Officer: LERC/J S LING, LERC/B S SINGH
CASE Category: 13 – PHYSICS

NAG 3 1898 PURDUE UNIVERSITY **4684**
PARALLEL IMPLEMENTATION OF CONSTRAINED OPTIMIZATION
TECHNOLOGY ON WORKSTATIONS WITH APPLICATION TO
 09/05/1996 – 09/04/1999 FY98: \$0 Total: \$15,000
Prin. Invest.: S S RAO
Tech. Officer: LERC/D R REDDY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2080 PURDUE UNIVERSITY **4685**
AEROSPACE STRUCTURAL METALS HANDBOOK
 10/28/1997 – 07/31/1998 FY98: \$45,921 Total: \$45,921
Prin. Invest.: H MINDLIN
Tech. Officer: LERC/J R REAGAN
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 3 2095 PURDUE UNIVERSITY **4686**
ON THE DEVELOPMENT OF SUPERSONIC JET NOISE PREDICTION METH-
ODOLOGY
 12/22/1997 – 11/24/2000 FY98: \$33,391 Total: \$33,391
Prin. Invest.: A S LYRINTZIS
Tech. Officer: LERC/J R SCOTT
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2107 PURDUE UNIVERSITY **4687**
SCRAMJET SCALING BASED ON ENERGY ANALYSIS SCRAMJET SCALING
BASED ON ENERGY ANALYSIS
 01/28/1998 – 12/04/1998 FY98: \$52,609 Total: \$52,609
Prin. Invest.: S B MUTHY
Tech. Officer: LERC/S R THOMAS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2169 PURDUE UNIVERSITY **4688**
FORCED RESPONSE PREDICTIONS OF TURBOMACHINERY BLADE ROWS
 05/29/1998 – 04/26/1999 FY98: \$20,000 Total: \$20,000
Prin. Invest.: S FLEETER
Tech. Officer: LERC/D C JANETZKE
CASE Category: 41 – AERONAUTICAL ENGR

NAG 4 114 PURDUE UNIVERSITY **4689**
NASA ACADEMY IN AERONAUTICS A PROPOSAL TO ESTABLISH THE
NASA ACADEMY IN
 12/30/1996 – 12/31/1997 FY98: \$0 Total: \$42,734
Prin. Invest.: D ANDRISANI
Tech. Officer: DFRC/E L DUKE, DFRC/K GUPTA
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 2492 PURDUE UNIVERSITY **4690**
OBSERVATIONS OF PULSATING EARLY B STARS: A SEARCH FOR X-RAY
VARIABILITY
 02/03/1994 – 08/14/1997 FY98: \$0 Total: \$38,836
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 3118 PURDUE UNIVERSITY **4691**
GEOPHYSICAL CHARACTERIZATION OF SOME TERRANES AND THE GEO-
PHYSICAL MODELING OF CANDIDATE SUTURE ZONES
 10/26/1995 – 04/30/1999 FY98: \$20,000 Total: \$58,886
Prin. Invest.: S KING
Tech. Officer: GSFC/R A LANGEL, GSFC/P T TAYLOR
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3294 PURDUE UNIVERSITY **4692**
4U 1223-62/4U 1907 + 09: SXRBS WITH PECULIAR X-RAY BEHAVIOR; A
DETAILED STUDY OF THE CRAB'S TWIN..
 07/17/1996 – 01/31/1998 FY98: \$0 Total: \$27,740
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3426 PURDUE UNIVERSITY **4693**
STRUCTURE IN THE DIFFUSE X-RAY BACKGROUND ALONG TH
 09/30/1996 – 09/30/1999 FY98: \$26,571 Total: \$44,297
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3589 PURDUE UNIVERSITY **4694**
GAMMA RAY OBSERVATIONS OF PSR B1055-52 AND OTHER S
 02/11/1997 – 02/14/1998 FY98: \$0 Total: \$2,280
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3833 PURDUE UNIVERSITY **4695**
THE ENIGMATIC CLOCK IN 2S 0114+65
 02/11/1997 – 02/14/1998 FY98: \$0 Total: \$16,500
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3965 PURDUE UNIVERSITY **4696**
STUDY ON APPLICATIONS OF SATELLITE DATA TO UNDERSTAND SEA INTER-
ACTIONS
 03/03/1997 – 01/31/1999 FY98: \$86,000 Total: \$180,112
Prin. Invest.: C A CLAYSON
Tech. Officer: GSFC/R KAKAR
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3975 PURDUE UNIVERSITY **4697**
RESEARCH ON METHODS FOR ANALYSIS OF MULTI-SPECTRAL DATA
 02/26/1997 – 01/31/1999 FY98: \$176,467 Total: \$354,108
Prin. Invest.: D A LANGREBE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3992 PURDUE UNIVERSITY **4698**
THE ANALYSIS AND PARAMETERIZATION OF SHORTWAVE RAD ATMOSPHERES
 02/26/1997 – 02/28/1999 FY98: \$95,000 Total: \$190,000
Prin. Invest.: D HARSHVARDHAN
Tech. Officer: GSFC/K H BERGMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4304 PURDUE UNIVERSITY **4699**
CHEMICAL STUDIES OF METEORITES
 04/14/1997 – 02/28/2001 FY98: \$60,667 Total: \$140,667
Prin. Invest.: D E LIPSCHUTZ
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4481 PURDUE UNIVERSITY **4700**
INVESTIGATION OF THE HIGH ENERGY TAILS OF SOFT X-R COORDINATED OBSERVATIONS OF TEV BL LAC OBJECTS
 05/06/1997 – 04/30/1998 FY98: \$0 Total: \$25,851
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4819 PURDUE UNIVERSITY **4701**
LABORATORY STUDIES OF DIACETYLENE PHOTOCHEMISTRY: RULES IN TITAN AND THE OUTER PLANETS' ATMOSPHERE
 06/17/1997 – 05/31/1999 FY98: \$35,417 Total: \$118,417
Prin. Invest.: D ZWIER
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6704 PURDUE UNIVERSITY **4702**
LABORATORY FOR APPLICATIONS OF REMOTE SENSING: A CENTER OF EXCELLENCE IN REMOTE SENSING APPLICATIONS
 12/04/1997 – 11/14/1998 FY98: \$90,220 Total: \$90,220
Prin. Invest.: C J JOHANNSEN
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6918 PURDUE UNIVERSITY **4703**
XTE PROPOSAL – MAPPING THE ORBITS OF ECLIPSING HIGH MASS SYSTEMS
 02/06/1998 – 01/31/1999 FY98: \$17,038 Total: \$17,038
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 6971 PURDUE UNIVERSITY **4704**
MACHINE LEARNING TO IMPROVE LAND COVER CLASSIFICATIONS FROM MULTISENSOR AND MULTITEMPORAL DATA
 03/12/1998 – 02/28/2001 FY98: \$25,956 Total: \$25,956
Prin. Invest.: C E BRODLEY
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7387 PURDUE UNIVERSITY **4705**
A SEARCH FOR PULSATIONS IN HMXB SYSTEMS
 05/07/1998 – 01/31/1999 FY98: \$9,167 Total: \$9,167
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7388 PURDUE UNIVERSITY **4706**
THE ORBITAL DECAY RATE AND SYSTEM PARAMETERS OF 4U 1700-37
 05/07/1998 – 05/31/1999 FY98: \$8,500 Total: \$8,500
Prin. Invest.: J P FINLEY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 8 1147 PURDUE UNIVERSITY **4707**
BIOLOGICAL PARTICLE SEPARATION IN LOW GRAVITY
 08/03/1995 – 08/02/1999 FY98: \$201,463 Total: \$536,214
Prin. Invest.: J MORRE
Tech. Officer: MSFC/L KARR
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 8 1233 PURDUE UNIVERSITY **4708**
RESEARCH "DEVELOPMENT OF ATMOSPHERIC PHYSICAL RET. USING SATELLITE DATA FROM MICROWAVE SOUNDING, ETC
 12/04/1996 – 01/21/1999 FY98: \$45,956 Total: \$95,871
Prin. Invest.: G W PETTY
Tech. Officer: MSFC/B L APENTA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 8 1515 PURDUE UNIVERSITY **4709**
VARIABILITY AND PREDICTABILITY OF LAND-ATMOSPHERE INTERACTIONS: OBSERVATIONAL AND MODELING STUDIES
 05/15/1998 – 05/31/1998 FY98: \$53,642 Total: \$53,642
Prin. Invest.: R OGLESBY
Tech. Officer: MSFC/J ARNOLD
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 2329 PURDUE UNIVERSITY **4710**
BIOMASS PRODUCTIVITY AND SUSTAINABILITY OF BIOREGIONAL NERATIVE LIFE SUPPORT SYSTEMS
 04/11/1991 – 12/31/1997 FY98: \$0 Total: \$5,436,519
Prin. Invest.: C A MITCHELL
Tech. Officer: HQ R J WHITE
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 3862 PURDUE UNIVERSITY **4711**
TOWARD SOIL SPATIAL INFORMATION SYSTEMS FOR GLOBAL MODELING AND ECOSYSTEM MANAGEMENT
 03/09/1994 – 12/31/1997 FY98: -\$4 Total: \$416,041
Prin. Invest.: M F BAUMGARDNER
Tech. Officer: HQ G H MUCKLOW, HQ/G ASRAR
CASE Category: 22 – COMPUTER SCIENCE

NAGW 3924 PURDUE UNIVERSITY **4712**
RESEARCH ON METHODS FOR ANALYSIS OF MULTISPECTRAL EARTH OBSERVATIONAL DATA
 04/14/1994 – 01/31/1997 FY98: \$0 Total: \$441,068
Prin. Invest.: D LANGREBE
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

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| NAGW 3944 PURDUE UNIVERSITY 4713 PASSIVE MICROWAVE ALGORITHM DEVELOPMENT AND EVALUATION 04/20/1994 - 03/31/1998 FY98: \$0 Total: \$261,918 <i>Prin. Invest.:</i> G W PETTY <i>Tech. Officer:</i> HQ/J C DODGE, HQ/R A SCHIFFER <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | NGT 51284 PURDUE UNIVERSITY 4721 GRADUATE STUDENT RESEARCHERS PROGRAM 06/07/1994 - 01/31/1998 FY98: -\$7 Total: \$65,993 <i>Prin. Invest.:</i> B BHARGAVA <i>Tech. Officer:</i> HQ/D HOLLAND <i>CASE Category:</i> 22 - COMPUTER SCIENCE |
| NAGW 5209 PURDUE UNIVERSITY 4714 THE ANALYSIS & PARAMETERIZATION OF SHORTWAVE RADIATION IN CLOUDY ATMOSPHERES 09/20/1996 - 12/31/1997 FY98: \$0 Total: \$45,000 <i>Prin. Invest.:</i> D HARSHVARDHAN, NONE <i>Tech. Officer:</i> HQ/K H BERGMAN, HQ/R C HARRISS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NGT 51659 PURDUE UNIVERSITY 4722 GRAD STUD RES PROG 08/05/1996 - 09/30/1997 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> J LONGUSKE <i>Tech. Officer:</i> HQ/D HOLLAND <i>CASE Category:</i> 41 - AERONAUTICAL ENGR |
| NAG13 38 PURDUE UNIVERSITY 4715 EVALUATING REMOTELY SENSED DATA FOR AGRICULTURAL AND NATURAL RESOURCE APPLICATIONS 08/16/1996 - 12/05/1998 FY98: \$236,363 Total: \$373,504 <i>Prin. Invest.:</i> C J JOHANNSEN <i>Tech. Officer:</i> SSC/J JENNER <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NGT 51670 PURDUE UNIVERSITY 4723 GRAD STUDENT RESEARCH PROGRAM 08/15/1996 - 06/30/1997 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> M K OKOS <i>Tech. Officer:</i> HQ/G LESANE <i>CASE Category:</i> 43 - CHEMICAL ENGR |
| NCC 2 5208 PURDUE UNIVERSITY 4716 PRESSURE AND TEMPERATURE SENSITIVE PAINT MEASUREMENTS ON ROTORS 04/02/1997 - 04/30/1999 FY98: \$0 Total: \$40,000 <i>Prin. Invest.:</i> J P SULLIVAN <i>Tech. Officer:</i> ARC/C TUNG <i>CASE Category:</i> 41 - AERONAUTICAL ENGR | NGT 1 52142 PURDUE UNIVERSITY 4724 GRADUATE STUDENT RESEARCHERS PROGRAM 06/25/1996 - 06/30/1997 FY98: -\$4,924 Total: \$17,077 <i>Prin. Invest.:</i> R J BERNHARD, M A FRANCHEK <i>Tech. Officer:</i> LARC/D E COX, LARC/R J SILCOX <i>CASE Category:</i> 46 - MECHANICAL ENGR |
| NCC 5 358 PURDUE UNIVERSITY 4717 DYNAMICAL SYSTEMS THEORY, NUMERICAL METHODS, OPTIMIZATION STRATEGIES & THEIR APPLICATION TO TRAJECTORIES 08/26/1998 - 07/31/1999 FY98: \$100,189 Total: \$100,189 <i>Prin. Invest.:</i> K C HOWELL <i>Tech. Officer:</i> GSFC/D FOLTA <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER | NGT 1 52198 PURDUE UNIVERSITY 4725 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 07/08/1998 - 06/30/1999 FY98: \$10,000 Total: \$10,000 <i>Prin. Invest.:</i> G L ROTH <i>Tech. Officer:</i> LARC/D W BARTLETT <i>CASE Category:</i> 41 - AERONAUTICAL ENGR |
| NCC 7 5 PURDUE UNIVERSITY 4718 APPLICATION OF DYNAMICAL SYSTEMS THEORY TO THE DESIGN AND DEVELOPMENT OF SPACECRAFT TRAJECTORIES 08/19/1996 - 08/19/1998 FY98: \$0 Total: \$125,000 <i>Prin. Invest.:</i> D C HOWELL <i>Tech. Officer:</i> NMO/K GALAL <i>CASE Category:</i> 42 - ASTRONAUTICAL ENGR | NGT 2 52225 PURDUE UNIVERSITY 4726 TOPOLOGY DESIGN OF ROTOR BLADES FOR AERODYNAMICS & STRUCTURAL CONSIDERATIONS 07/29/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> W A CROSSLEY <i>Tech. Officer:</i> ARC/S R KOTTAPALLI <i>CASE Category:</i> 41 - AERONAUTICAL ENGR |
| NGT 40025 PURDUE UNIVERSITY 4719 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM 04/25/1991 - 09/30/1997 FY98: \$0 Total: \$917,000 <i>Prin. Invest.:</i> D ANDRISANI, 11 <i>Tech. Officer:</i> HQ/E T SCHWARTZ <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER | NGT 4 52400 PURDUE UNIVERSITY 4727 NEW H-INFINITY CONTROL SYNTHESIS FOR THE F-18 NEW AWARD 06/30/1995 - 07/31/1998 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> A E FRAZHO <i>Tech. Officer:</i> DFRC/K K GUPTA, DFRC/L VOELKER <i>CASE Category:</i> 41 - AERONAUTICAL ENGR |
| NGT 51077 PURDUE UNIVERSITY 4720 GRADUATE STUDENT RESEARCHERS PROGRAM 06/01/1993 - 06/30/1997 FY98: -\$5,309 Total: \$60,691 <i>Prin. Invest.:</i> G W PETTY <i>Tech. Officer:</i> HQ/G LESANE <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | NGT 5 28 PURDUE UNIVERSITY 4728 TRAJECTORY DESIGN STRATEGIES FOR LIBRAITON POINT MANIFOLDS THAT INCORPORATE INVARIANT MANIFOLDS 07/13/1996 - 07/31/1999 FY98: \$22,000 Total: \$66,000 <i>Prin. Invest.:</i> K C HOWELL <i>Tech. Officer:</i> GSFC/G A SOFFEN, GSFC/J COOLEY <i>CASE Category:</i> 42 - ASTRONAUTICAL ENGR |

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| NGT 5 30040 PURDUE UNIVERSITY 4729 EFFECT OF ANTHROPOGENIC AEROSOL ON CLOUD OPTICAL PROPERTIES: A CASE STUDY OF THE EASTERN U.S. 10/17/1996 - 02/28/2000 FY98: \$22,000 Total: \$88,000 <i>Prin. Invest.:</i> D HARSHVARDHAN <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | NAG 1 1987 UNIVERSITY OF NOTRE DAME 4737 WAKE DEVELOPMENT AND STRUCTURE IN ADVERSE PRESSURE GRADIENT 01/05/1998 - 04/04/1999 FY98: \$50,371 Total: \$50,371 <i>Prin. Invest.:</i> F J THOMAS, R C NELSON <i>Tech. Officer:</i> LARC/J B ANDERS <i>CASE Category:</i> 41 - AERONAUTICAL ENGR |
| NGT 5 30163 PURDUE UNIVERSITY 4730 DEVELOPMENT, EVALUATION, AND APPLICATION OF A FAST TIME RESPONSE MASS SPECTROMETRIC METHOD FOR QU 08/31/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> SHEPSON, BARKET <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAG 1 2032 UNIVERSITY OF NOTRE DAME 4738 BUCKLING OF DAMAGED FLAT PANELS UNDER BIAXIAL LOADING 03/17/1998 - 10/31/1998 FY98: \$24,760 Total: \$24,760 <i>Prin. Invest.:</i> E J ORONA <i>Tech. Officer:</i> LARC/J H STARNES, LARC/R D YOUNG <i>CASE Category:</i> 41 - AERONAUTICAL ENGR |
| NGT 5 40043 PURDUE UNIVERSITY 4731 THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PR 01/30/1997 - 02/28/2001 FY98: \$256,250 Total: \$461,250 <i>Prin. Invest.:</i> D ANDRISANI <i>Tech. Officer:</i> GSFC/L KEFFER <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER | NAG 3 732 UNIVERSITY OF NOTRE DAME 4739 EFFECTS OF NONUNIFORM FLOWS ON THE AERODYNAMICS & NOISE RADIATION OF ADVANCED TURBOPROPS 05/27/1986 - 09/30/1997 FY98: -\$36 Total: \$720,882 <i>Prin. Invest.:</i> H M ATASSI <i>Tech. Officer:</i> LARC/J F GROENEWEG <i>CASE Category:</i> 41 - AERONAUTICAL ENGR |
| NGT 5 50110 PURDUE UNIVERSITY 4732 GRADUATE STUDENT RESEARCHERS PROGRAM - STUDENT: R 09/11/1997 - 08/14/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> J LONGUSKI <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER | NAG 4 123 UNIVERSITY OF NOTRE DAME 4740 A HIGH-LIFT FLOW PHYSICS EXPERIMENT USING THE NASA DRYDEN FLIGHT TEST FIXTURE 04/14/1997 - 04/14/1999 FY98: \$25,937 Total: \$85,937 <i>Prin. Invest.:</i> R NELSON, F THOMAS <i>Tech. Officer:</i> DFRC/D FISHER <i>CASE Category:</i> 22 - COMPUTER SCIENCE |
| NGT 5 50130 PURDUE UNIVERSITY 4733 SEARCH FOR A SPECTROSCOPIC SIGNATURE OF TRIPLET ME 09/10/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> T ZWIER <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 41 - AERONAUTICAL ENGR | NAG 5 557 UNIVERSITY OF NOTRE DAME 4741 ERROR CONTROL TECHNIQUES FOR SATELLITE AND SPACE COMMUNICATIONS 06/01/1985 - 02/18/1999 FY98: \$48,200 Total: \$695,020 <i>Prin. Invest.:</i> D COSTELLO <i>Tech. Officer:</i> GSFC/W H MILLER, GSFC/J C MORAKIS <i>CASE Category:</i> 49 - ENGINEERING, OTHER |
| NGT 5 50222 PURDUE UNIVERSITY 4734 MODELING MULTITHREADING ON MIMD COMPUTERS 09/25/1998 - 08/31/2001 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> L H JAMIESON, TEANY <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 22 - COMPUTER SCIENCE | NAG 5 3818 UNIVERSITY OF NOTRE DAME 4742 INSTABILITIES IN COALESCING NEUTRON STARS 01/14/1997 - 01/14/1999 FY98: \$0 Total: \$30,000 <i>Prin. Invest.:</i> G J MATHEWS <i>Tech. Officer:</i> GSFC/J P NORRIS <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 5184 TAYLOR UNIVERSITY 4735 DROPPS: THE DISTRIBUTION AND ROLE OF PARTICLES IN THE POLAR SUMMER MESOSPHERE USING COORDINATED ROCK 03/13/1998 - 10/31/1998 FY98: \$50,017 Total: \$50,017 <i>Prin. Invest.:</i> H D VOSS <i>Tech. Officer:</i> GSFC/W B JOHNSON <i>CASE Category:</i> 13 - PHYSICS | NAG 5 4017 UNIVERSITY OF NOTRE DAME 4743 DEGREE SCALE COSMIC MICROWAVE BACKGROUND ANISOTROPY DEFECTS 02/26/1997 - 02/26/1999 FY98: \$82,300 Total: \$160,863 <i>Prin. Invest.:</i> D P IENNETT <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 1 - ASTRONOMY |
| NAG 1 1561 UNIVERSITY OF NOTRE DAME 4736 MULTIDISCIPLINARY DESIGN TECHNOLOGY DEVELOPMENT: A COMPARATIVE INVESTIGATION OF INTEGRATED AEROSPACE 12/20/1993 - 09/30/1998 FY98: \$10,000 Total: \$664,411 <i>Prin. Invest.:</i> J E RENAUD, S M BATILL, J B BROCKMAN <i>Tech. Officer:</i> LARC/J SORIESKI, LARC/L L GREEN <i>CASE Category:</i> 41 - AERONAUTICAL ENGR | NAG 5 4573 UNIVERSITY OF NOTRE DAME 4744 DETECTION OF EXTRA-SOLAR PLANETS VIA GRAVITATIONAL 09/05/1997 - 07/14/1999 FY98: \$14,583 Total: \$54,583 <i>Prin. Invest.:</i> D BEJNETT <i>Tech. Officer:</i> HQ/L BOYCE <i>CASE Category:</i> 11 - ASTRONOMY |

NASA'S UNIVERSITY PROGRAM

NCC 2 1014 UNIVERSITY OF NOTRE DAME **4745**
EXPERIMENTAL INVESTIGATION OF UNSTEADY ASPECTS OF HIGH FLOWS
 02/01/1998 – 01/14/1999 FY98: \$55,217 Total: \$55,217
Prin. Invest.: F O THOMAS, S OLSON, R C NELSON
Tech. Officer: ARC/J C ROSS, ARC/D SATRAN
CASE Category: 41 – AERONAUTICAL ENGR

NCC 3 466 UNIVERSITY OF NOTRE DAME **4746**
FUNDAMENTAL PROCESSES OF ATOMIZATION IN FLUID-FLUID FLOWS
 04/16/1996 – 04/15/2000 FY98: \$129,998 Total: \$357,994
Prin. Invest.: M J MCCREADY, H C CHANG, D T LEIGHTON
Tech. Officer: LERC/J B MCGUILEN
CASE Category: 49 – ENGINEERING, OTHER

NGT 30250 UNIVERSITY OF NOTRE DAME **4747**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/22/1994 – 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: R G CARLTON
Tech. Officer: HQ/AC JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 1223 VALPARISO UNIVERSITY **4748**
ADP INFRARED STUDY OF TRANSITION LATE ASYMPTATIC GIANT
 07/27/1989 – 09/30/1999 FY98: \$0 Total: \$159,200
Prin. Invest.: B J HRIVNAK
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 2645 VALPARISO UNIVERSITY **4749**
UV CHROMOSPHERIC ACTIVITY IN COOL, SHORT-PERIOD CONTACT BINARIES
 07/12/1994 – 08/31/1999 FY98: \$0 Total: \$7,300
Prin. Invest.: B J HRIVNAK
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3346 VALPARISO UNIVERSITY **4750**
ISO SPECTROSCOPY OF PROTO-PLANETARY NEBULAE
 08/12/1996 – 08/14/1998 FY98: \$0 Total: \$33,100
Prin. Invest.: B J HRIVNAK
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

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NAG 5 2999 DRAKE UNIVERSITY **4751**
MULTIPLE SHELLS AROUND WOLF-RAYET STARS SPACE-BASED ASTROMETRIC OBSERVING
 07/14/1995 – 07/31/1997 FY98: \$0 Total: \$68,400
Prin. Invest.: A O MARSTON
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6854 DRAKE UNIVERSITY **4752**
WIRE OBSERVATIONS OF THE CIRCUMSTELLAR REGIONS OF EVOLVED MASSIVE STARS.
 02/19/1998 – 02/14/1999 FY98: \$24,500 Total: \$24,500
Prin. Invest.: A MARSTON
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 8 264 DRAKE UNIVERSITY **4753**
JOVE
 12/08/1992 – 08/31/1997 FY98: -\$8 Total: \$107,242
Prin. Invest.: A MARSTON, K KOPECKY
Tech. Officer: MSFC/F SIX
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1222 DRAKE UNIVERSITY **4754**
JOVE
 11/30/1995 – 08/31/1999 FY98: \$0 Total: \$44,500
Prin. Invest.: M D VALLE-BOHORQUEZ
Tech. Officer: MSFC/D SIX
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 1 1739 IOWA STATE UNIVERSITY **4755**
REAL-TIME SUBOPTIMAL FEEDBACK CONTROL USING NEIGHBORING OPTIMAL CONTROL
 07/18/1995 – 10/31/1997 FY98: \$0 Total: \$78,267
Prin. Invest.: B L PIERSON
Tech. Officer: LARC/D D MOERDER, LARC/D B PRICE
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG 1 1807 IOWA STATE UNIVERSITY **4756**
THEORETICAL/COMPUTATIONAL STUDIES OF HYPERSONIC LAMINAR VISCOUS
 02/14/1996 – 09/30/1997 FY98: -\$1 Total: \$41,643
Prin. Invest.: G R INGER
Tech. Officer: LARC/P A GNOFFO
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1933 IOWA STATE UNIVERSITY **4757**
DEVELOPMENT OF ENHANCED X-RAY INSPECTION
 05/21/1997 – 05/19/1999 FY98: \$76,357 Total: \$121,084
Prin. Invest.: J GRAY, J BASART
Tech. Officer: LARC/W P WINFREE, LARC/F R PARKER
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 2 776 IOWA STATE UNIVERSITY **4758**
NUMERICAL COMPUTATION OF THE CHEMICALLY REACTING FLOW AROUND THE NATIONAL AERO-SPACE PLANE
 04/02/1992 – 01/31/1999 FY98: \$0 Total: \$172,219
Prin. Invest.: J C TANNEHILL
Tech. Officer: ARC/T A EDWARDS, ARC/S L LAWRENCE
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 1302 IOWA STATE UNIVERSITY **4759**
CAMPARISON OF SLOW- AND FAST-RESPONSE INST FLOW FIELD MEASUREMENTS IN A TRANSONIC AXIAL-FLOW COMPRESSOR STAGE
 10/30/1991 – 05/31/1997 FY98: \$0 Total: \$250,246
Prin. Invest.: T H OKIISHI
Tech. Officer: LERC/K L SUDER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 1318 IOWA STATE UNIVERSITY **4760**
ALGORITHMS FOR NON-UNIFORM RATIONAL B-SPLINE SURFACE MODEL DEVELOPMENT
 01/27/1992 – 02/05/1998 FY98: \$0 Total: \$269,559
Prin. Invest.: J H OLIVER
Tech. Officer: LERC/D P MILLER, LERC/A L EVANS
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1786 IOWA STATE UNIVERSITY **4761**
GENERALIZED GEOMETRIC MODELING FOR TURBOMACHINERY APPLICATION
 09/15/1995 – 11/07/1997 FY98: \$17,385 Total: \$104,413
Prin. Invest.: J H OLIVER
Tech. Officer: LERC/D P MILLER, LERC/A L EVANS
CASE Category: 46 – MECHANICAL ENGR

NAG 3 2042 IOWA STATE UNIVERSITY **4762**
COMPARISON OF SLOW- AND FAST-RESPONSE INSTRUMENT F LOW FIELD MEASUREMENTS IN A TRANSONIC AXIAL-FLOW
 04/29/1997 – 11/01/1997 FY98: -\$10,546 Total: \$35,847
Prin. Invest.: T H OKIISM
Tech. Officer: LERC/K SUDER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 1519 IOWA STATE UNIVERSITY **4763**
DATA VALIDATION FOR TOTAL OZONE MAPPING SPECTROMETER FOR SMALL-CLASS EXPLORER
 04/02/1991 – 05/14/1999 FY98: \$0 Total: \$421,508
Prin. Invest.: J L STANFORD
Tech. Officer: GSFC/A J KRUEGER, GSFC/M R SCHOEBERL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2286 IOWA STATE UNIVERSITY **4764**
HIGH PERFORMANCE MORPHOLOGICAL FILTERING OF CIRrus EMISSION FORM INFRARED IMAGES
 06/16/1993 – 02/28/1997 FY98: -\$16 Total: \$79,425
Prin. Invest.: P N APPLETON
Tech. Officer: GSFC/J A PEDELTY
CASE Category: 11 – ASTRONOMY

NAG 5 2787 IOWA STATE UNIVERSITY **4765**
DYNAMICAL ANALYSES OF MLS AND ISAMS DATA FROM THE UPPER ATMOSPHERE RESEARCH SATELLITE
 11/14/1994 – 11/14/1998 FY98: \$0 Total: \$192,452
Prin. Invest.: J L STANFORD
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2830 IOWA STATE UNIVERSITY **4766**
THE CHROMOSPHERE/SHOCK DILEMMA OF NON-MIRA, LATE-TYPE VARIABLE STARS
 12/12/1994 – 12/14/1996 FY98: -\$670 Total: \$32,330
Prin. Invest.: L A WILLIAM
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 2930 IOWA STATE UNIVERSITY **4767**
ANALYSES FOR THE CLIMATOLOGY AND SHORT-TERM VARIABILITY OF THE ATMOSPHERIC GENERAL CIRCULATION ETC
 04/18/1995 – 05/31/1999 FY98: \$0 Total: \$240,000
Prin. Invest.: T C CHEN, J J TRIBIA
Tech. Officer: GSFC/S COHN
CASE Category: 11 – ASTRONOMY

NAG 5 3317 IOWA STATE UNIVERSITY **4768**
IR IMAGING OF COLLISIONAL RING GALAXIES
 07/31/1996 – 08/14/1998 FY98: \$0 Total: \$18,000
Prin. Invest.: P N APPLETON
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3819 IOWA STATE UNIVERSITY **4769**
OBSERVATIONS OF NEARBY BL LACERTAE OBJECTS AND OBS MARKARIAN 4:1 AND MARKARIAN 501
 01/24/1997 – 01/31/1998 FY98: \$0 Total: \$29,000
Prin. Invest.: D CARTER-LEWIS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3918 IOWA STATE UNIVERSITY **4770**
BASIC AWARD
 02/24/1997 – 08/31/1998 FY98: \$0 Total: \$58,494
Prin. Invest.: J A DICKERSON
Tech. Officer: GSFC/M A WOODARD, GSFC/P L CROUSE
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG 5 4060 IOWA STATE UNIVERSITY **4771**
THEORETICAL MODELS OF HOT PRE-WHITE DWARFS FOR SEI
 03/18/1997 – 03/31/1999 FY98: \$65,100 Total: \$136,200
Prin. Invest.: S D KAWALER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6353 IOWA STATE UNIVERSITY **4772**
MINIATURIZED LIQUID CHROMATOGRAPHY
 09/23/1997 – 08/31/1998 FY98: \$0 Total: \$75,358
Prin. Invest.: M POTTERT
Tech. Officer: GSFC/L P CHAMBERS
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 7070 IOWA STATE UNIVERSITY **4773**
COORDINATED OBSERVATIONS OF TEV BL LAC OBJECTS
 03/04/1998 – 03/14/1999 FY98: \$23,900 Total: \$23,900
Prin. Invest.: M A CATANESE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7133 IOWA STATE UNIVERSITY **4774**
ATMOSPHERIC DYNAMICS DEDUCED FROM UARS USING MIDDLE ATMOSPHERE ISAMSCARBOT MONOXIDE AND UPPER T
 03/16/1998 – 04/31/1999 FY98: \$34,222 Total: \$34,222
Prin. Invest.: D L STANFORD
Tech. Officer: GSFC/A DOUGLASS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7271 IOWA STATE UNIVERSITY **4775**
SMALL SCALE THOPOPAUSE DYNAMICS AND TOMS TOTAL OZONE
 05/05/1998 – 05/31/1999 FY98: \$78,000 Total: \$78,000
Prin. Invest.: S L STANFORD
Tech. Officer: GSFC/S CHANDRA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7423 IOWA STATE UNIVERSITY **4776**
XTE PROPOSAL 30260) – CORRELATED OBSERVATIONS OF MARKARIAN 501
 05/26/1998 – 05/31/1999 FY98: \$9,167 Total: \$9,167
Prin. Invest.: M A CATANESE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7530 IOWA STATE UNIVERSITY **4777**
ANALYSES FOR THE CLIMATOLOGY AND SHORT-TERM VARIABILITY OF THEATMOSPHERIC GENERALCIRCULA
 06/12/1998 – 06/14/1999 FY98: \$85,000 Total: \$85,000
Prin. Invest.: T CHEN
Tech. Officer: GSFC/S SCHUBERT
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7561 IOWA STATE UNIVERSITY **4778**
COUPLED ATMOSPHERE-SNOW MODEL EVALUATION OF REGIONAL SNOWMELT
 06/29/1998 – 06/30/2001 FY98: \$270,000 Total: \$270,000
Prin. Invest.: W J GUTOWSKI, JR.
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 8 1289 IOWA STATE UNIVERSITY **4779**
FOR RESEARCH "ENTRY GUIDANCE FOR THE REUSABLE LAUNCH VEHICLE."
 01/08/1997 – 01/07/1999 FY98: \$32,663 Total: \$63,227
Prin. Invest.: P LU
Tech. Officer: MSFC/J M HANSON, MSFC/G A DUKEMAN
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG 9 827 IOWA STATE UNIVERSITY **4780**
DETERMINING CONDITIONS FOR DEVELOPMENT OF FUNCTIONAL CARTILAGE
 08/15/1995 – 09/07/1999 FY98: \$85,000 Total: \$364,000
Prin. Invest.: C A HEATH
Tech. Officer: JSC/N R PELLIS
CASE Category: 56 – MEDICL

NCC 2 5216 IOWA STATE UNIVERSITY **4781**
UNCERTAINTY RELATIONSHIP HANDLER FOR ESTIMATING ROBOT ENVIRONMENTS (URHERE)
 05/16/1997 – 04/30/1999 FY98: \$0 Total: \$25,000
Prin. Invest.: G THOMAS
Tech. Officer: ARC/M H SIMS
CASE Category: 22 – COMPUTER SCIENCE

NCC 4 109 IOWA STATE UNIVERSITY **4782**
NONCLASSICAL FLIGHT CONTROL FOR UNHEALTHY AIRCRAFT NEW AWARD
 03/28/1997 – 11/30/1997 FY98: -\$88 Total: \$34,920
Prin. Invest.: P LU
Tech. Officer: DFRG/J PURKEN
CASE Category: 22 – COMPUTER SCIENCE

NCC 4 117 IOWA STATE UNIVERSITY **4783**
COMBINE TRAJECTORY DESIGN AND FLIGHT CONTROL SYSTEM RECONFIGURATION
 03/03/1998 – 03/03/1999 FY98: \$26,250 Total: \$26,250
Prin. Invest.: P LU
Tech. Officer: DFRG/J BURKEN
CASE Category: 41 – AERONAUTICAL ENGR

NCC 8 98 IOWA STATE UNIVERSITY **4784**
INTERFACE PATTERN SELECTION CRITERION FOR CELLULAR STRUCTURES IN DIRECTIONAL SOLIDIFICATION
 06/28/1996 – 06/30/2000 FY98: \$107,000 Total: \$417,500
Prin. Invest.: R K TRIVEDI
Tech. Officer: MSFC/D HUBBARD
CASE Category: 49 – ENGINEERING, OTHER

NGT 30342 IOWA STATE UNIVERSITY **4785**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/04/1995 – 02/01/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: E TAKLE
Tech. Officer: HQ/G ASRAR
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 40018 IOWA STATE UNIVERSITY **4786**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 03/14/1990 – 09/30/1997 FY98: \$0 Total: \$2,448,746
Prin. Invest.: W J BYRD
Tech. Officer: HQ/E SCHWARTZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 51205 IOWA STATE UNIVERSITY **4787**
GRAD STUDENT RESEARCHERS PROGRAM
 04/25/1994 – 06/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: J E BERNARD
Tech. Officer: MSFC/F SIX
CASE Category: 46 – MECHANICAL ENGR

NGT 51254 IOWA STATE UNIVERSITY **4788**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/07/1994 – 06/30/1997 FY98: -\$76 Total: \$65,924
Prin. Invest.: A FLATAU
Tech. Officer: LARC/L EVANS
CASE Category: 46 – MECHANICAL ENGR

NGT 3 52332 IOWA STATE UNIVERSITY **4789**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/11/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: A ROTHMAYER
Tech. Officer: LERC/F J MONTAGANI
CASE Category: 46 – MECHANICAL ENGR

NGT 5 40027 IOWA STATE UNIVERSITY **4790**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 01/09/1997 – 01/31/2001 FY98: \$475,000 Total: \$843,800
Prin. Invest.: W J BYRD
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50137 IOWA STATE UNIVERSITY **4791**
MEMBRANE PROTEIN CRYSTALLIZATION: UNDERSTANDING TITON CRYSTALLIZATION
 09/10/1997 – 10/01/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J W WIENCEK
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 8 52822 IOWA STATE UNIVERSITY **4792**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/31/1996 – 07/01/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: C L CLOVER
Tech. Officer: MSFC/J HALE
CASE Category: 45 – ELECTRICAL ENGR

NAG 1 1907 UNIVERSITY OF IOWA **4793**
IMPACT OF MINERAL AEROSOLS AND ASIAN EMISSIONS ON THE CHEMISTRY OF THE TROPOSPHERE
 03/19/1997 – 03/31/1999 FY98: \$111,000 Total: \$222,000
Prin. Invest.: G R CAMICHAEL
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 – ATMOSPHERIC SCIENCE

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| NAG 2 571 UNIVERSITY OF IOWA 4794 "CONTINUING ANALYSIS AND INTERPRETATION OF DATA FROM PIONEER 10 AND PIONEER 11" 05/23/1989 – 01/31/1999 FY98: \$0 Total: \$1,265,482 <i>Prin. Invest.:</i> J A VAN ALLEN <i>Tech. Officer:</i> ARC/L E LASHER, ARC/R O FIMMEL CASE Category: 11 – ASTRONOMY | NAG 5 2371 UNIVERSITY OF IOWA 4802 ANALYSIS OF F LASMA MEASUREMENTS FOR THE GEOTAIL MISSION 09/21/1993 – 09/30/1999 FY98: \$470,000 Total: \$4,089,734 <i>Prin. Invest.:</i> L A FRANK <i>Tech. Officer:</i> GSFC/M H ACUNA CASE Category: 13 – PHYSICS |
| NAG 2 1167 UNIVERSITY OF IOWA 4795 VIDEO ENGRAVING FOR MOBILE ROBOTICS 11/19/1997 – 10/31/1998 FY98: \$51,200 Total: \$51,200 <i>Prin. Invest.:</i> G W THOMAS <i>Tech. Officer:</i> ARC/M H SIMS CASE Category: 22 – COMPUTER SCIENCE | NAG 5 2774 UNIVERSITY OF IOWA 4803 DEVELOPMENT OF GROUND RADAR RAINFALL ESTIMATION METHODOLOGY FOR VALIDATION OF TRMM SATELLITE ETC.. 10/26/1994 – 10/11/1997 FY98: \$0 Total: \$287,014 <i>Prin. Invest.:</i> W F KRAJEWSKI <i>Tech. Officer:</i> GSFC/O THIELE CASE Category: 31 – ATMOSPHERIC SCIENCE |
| NAG 3 1592 UNIVERSITY OF IOWA 4796 BUOYANCY EFFECTS ON THE STRUCTURE AND STABILITY OF BURKE – SCHUMANN DIFFUSION FLAME 06/02/1994 – 12/01/1998 FY98: \$75,000 Total: \$390,000 <i>Prin. Invest.:</i> L D CHEN <i>Tech. Officer:</i> LERC/D STOCKER CASE Category: 46 – MECHANICAL ENGR | NAG 5 2939 UNIVERSITY OF IOWA 4804 WIND AND POLAR DATA ANALYSIS 05/11/1995 – 05/14/1998 FY98: \$0 Total: \$65,000 <i>Prin. Invest.:</i> J D SCUDDER <i>Tech. Officer:</i> GSFC/K W OGILVIE CASE Category: 13 – PHYSICS |
| NAG 3 2128 UNIVERSITY OF IOWA 4797 PLASMA DUST CRYSTALLIZATION PLASMA DUST CRYSTALLIZATION 02/27/1998 – 12/31/2002 FY98: \$100,000 Total: \$100,000 <i>Prin. Invest.:</i> J A GOREE <i>Tech. Officer:</i> LERC/R B ROGERS CASE Category: 13 – PHYSICS | NAG 5 3295 UNIVERSITY OF IOWA 4805 HARD X-RAY PROPERTIES OF NARROW LINE SEYFERT 1 GALAXIES 07/17/1996 – 01/31/1998 FY98: \$0 Total: \$17,000 <i>Prin. Invest.:</i> R E EELSON <i>Tech. Officer:</i> GSFC/J SWANK CASE Category: 11 – ASTRONOMY |
| NAG 4 115 UNIVERSITY OF IOWA 4798 NEW METHODOLOGY OF INTEGRATED PROJECT DEVELOPMENT THROUGH SOLID MODELING ANALYSIS PROTOTYPING ETC 01/31/1997 – 08/30/1998 FY98: \$0 Total: \$24,955 <i>Prin. Invest.:</i> I BOND <i>Tech. Officer:</i> DFR/L DUKE, 11 CASE Category: 41 – AERONAUTICAL ENGR | NAG 5 3318 UNIVERSITY OF IOWA 4806 ISO OBSERVATIONS OF VARIABLE CIRCUMSTELLAR SHELLS 07/31/1996 – 08/14/1999 FY98: \$0 Total: \$18,000 <i>Prin. Invest.:</i> J D F X <i>Tech. Officer:</i> GSFC/D WEST CASE Category: 11 – ASTRONOMY |
| NAG 5 483 UNIVERSITY OF IOWA 4799 GLOBAL AURORA IMAGING 11/01/1984 – 01/31/1998 FY98: \$0 Total: \$3,624,815 <i>Prin. Invest.:</i> L A FRANK <i>Tech. Officer:</i> GSFC/G D BULLOCK, GSFC/R A HOFFMAN CASE Category: 19 – PHYSICAL SCIENCE, OTHER | NAG 5 3328 UNIVERSITY OF IOWA 4807 GLOBAL ULTRAVIOLET IMAGING PROCESSING FOR THE GGS/SYSTEM 10/01/1996 – 09/30/1999 FY98: \$145,821 Total: \$462,006 <i>Prin. Invest.:</i> D A FRANK <i>Tech. Officer:</i> GSFC/R HOFFMAN CASE Category: 19 – PHYSICAL SCIENCE, OTHER |
| NAG 5 2231 UNIVERSITY OF IOWA 4800 METHODOLOGY FOR 3D QUADRATURE OF GGS/HYDRA DATA IN CLUDING CALIBRATION DATA, SPACECRAFT POTENTIAL.. 05/10/1993 – 03/31/1999 FY98: \$553,000 Total: \$2,867,001 <i>Prin. Invest.:</i> J D SCUDDER <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> GSFC/M H ACUNA, GSFC/D N BAKER CASE Category: 13 – PHYSICS | NAG 5 3716 UNIVERSITY OF IOWA 4808 BALLOONING INSABILITIES OF THIN CURRENT SHEETS 01/24/1997 – 01/31/2001 FY98: \$58,500 Total: \$73,500 <i>Prin. Invest.:</i> A BHATTACHARJEE <i>Tech. Officer:</i> GSFC/J BOHLINE CASE Category: 13 – PHYSICS |
| NAG 5 2346 UNIVERSITY OF IOWA 4801 GEOTAIL MCA PLASMA WAVE DATA ANALYSIS 08/09/1993 – 10/31/1998 FY98: \$180,000 Total: \$1,714,921 <i>Prin. Invest.:</i> R R ANDERSON <i>Tech. Officer:</i> GSFC/M ACUNA CASE Category: 13 – PHYSICS | NAG 5 3760 UNIVERSITY OF IOWA 4809 DYNAMICS EXPLORER-1 IMAGES ON-LINE TO THE WORLD W 12/12/1996 – 12/14/1997 FY98: \$0 Total: \$8,552 <i>Prin. Invest.:</i> D A FRANK <i>Tech. Officer:</i> GSFC/J WILLETT CASE Category: 13 – PHYSICS |

NAG 5 4266 UNIVERSITY OF IOWA **4810**
STUDY OF AURORAL ELECTRON ACCELERATION BY KINETIC
 03/25/1997 - 05/14/1999 FY98: \$39,829 Total: \$123,729
Prin. Invest.: D F OTANI
Tech. Officer: GSFC/D EVANS
CASE Category: 13 - PHYSICS

NAG 5 4497 UNIVERSITY OF IOWA **4811**
**COMPREHENSIVE INVESTIGATION OF 2FP RADIO EMISSIONS THE DAY-
 SIDE AND NIGHTSIDE AURORAL REGIONS**
 05/06/1997 - 05/31/1999 FY98: \$38,000 Total: \$113,060
Prin. Invest.: D MENIETTI
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4581 UNIVERSITY OF IOWA **4812**
A LOW COST MERCURY ORBITER MISSION
 05/13/1997 - 03/31/1999 FY98: \$0 Total: \$34,000
Prin. Invest.: D S KURTH
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 4755 UNIVERSITY OF IOWA **4813**
**GROUND-BASED RADAR-RAINFALL ESTIMATION FOR THE GUA VALIDA-
 TION SITES**
 06/27/1997 - 06/30/1999 FY98: \$275,000 Total: \$390,000
Prin. Invest.: W F KRAJEWSKI
Tech. Officer: GSFC/G M HEYMSFIELD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 5051 UNIVERSITY OF IOWA **4814**
**PLASMA TURBULENCE IN THE INTERSTELLAR MEDIUM: SIMILARITY TO
 HELIOSPHERIC TURBULENCE & ROLE IN...**
 01/25/1996 - 12/31/1998 FY98: \$0 Total: \$152,000
Prin. Invest.: S R SPANGLER
Tech. Officer: GSFC/H C NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 6127 UNIVERSITY OF IOWA **4815**
THEORETICAL STUDIES OF TYPE III SOLAR RADIO BURSTS
 08/04/1997 - 07/14/1999 FY98: \$12,303 Total: \$66,303
Prin. Invest.: D CAIRNS
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6171 UNIVERSITY OF IOWA **4816**
NEURAL CONTROL MECHANISMS AND BODY FLUID HOMEOSTASIS
 08/11/1997 - 03/31/1998 FY98: \$0 Total: \$149,763
Prin. Invest.: A JOHNSON
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6369 UNIVERSITY OF IOWA **4817**
LANGMUIR-LIKE WAVES AND RADIATION IN PLANETARY FOR
 09/25/1997 - 08/31/2000 FY98: \$25,000 Total: \$37,000
Prin. Invest.: D H CAIRNS
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6525 UNIVERSITY OF IOWA **4818**
**KINETIC ALFVEN WAVE ELECTRON ACCELERATION ON AURORAL FIELD
 LINES**
 11/25/1997 - 08/31/1999 FY98: \$72,074 Total: \$72,074
Prin. Invest.: D A KLETZING
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 6670 UNIVERSITY OF IOWA **4819**
**PROJECT LIVE: LABORATORY FOR THE IMMERSIVE VISUALIZATION OF
 THE ENVIRONMENT**
 12/16/1997 - 10/31/1999 FY98: \$213,470 Total: \$213,470
Prin. Invest.: M ARMSTRONG
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7187 UNIVERSITY OF IOWA **4820**
**RESTORATION AND ARCHIVING OF THE ISEE 1 AND 2 PLASMA WAVE
 INVESTIGATION DATA SETS**
 03/26/1998 - 03/31/2001 FY98: \$42,956 Total: \$42,956
Prin. Invest.: D ANDERSON
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 7390 UNIVERSITY OF IOWA **4821**
**GENERATION AND SCATTERING OF RADIATION OBSERVED BY VOYAGER
 IN THE OUTER HELIOSPHERE**
 05/07/1998 - 02/28/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: I H CAIRNS
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 7684 UNIVERSITY OF IOWA **4822**
**FUNDING OF THE ANALYSIS OF PLASMA MEASUREMENTS FOR THE GEO-
 TAIL EXTENDED MISSION / FUNDING FOR YR 1**
 09/09/1998 - 09/30/1999 FY98: \$470,000 Total: \$470,000
Prin. Invest.: L A FRANK
Tech. Officer: GSFC/D H FAIRFIELD
CASE Category: 13 - PHYSICS

NAG 5 7710 UNIVERSITY OF IOWA **4823**
**A PROPOSAL FOR STUDYING GEOMAGNETIC STORMS FROM THE ANAL-
 YSES AND INTER. OF PLASMA WAVE DATA**
 09/23/1998 - 09/30/1999 FY98: \$180,000 Total: \$180,000
Prin. Invest.: R R ANDERSON
Tech. Officer: GSFC/D H FAIRFIELD
CASE Category: 13 - PHYSICS

NAG 5 7712 UNIVERSITY OF IOWA **4824**
**FUNDING FOR VIS ON THE POLAR SPACECRAFT FOR THE EXTENDED
 MISSION**
 09/28/1998 - 09/30/1999 FY98: \$850,000 Total: \$850,000
Prin. Invest.: L A FRANK
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 13 - PHYSICS

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| <p>NAG 8 1153 UNIVERSITY OF IOWA 4825 EMPIRICAL MODELS OF THE INNER MAGNETOSPHERIC ION PLASMA COM- POSITION AND TEMPERATURE 06/21/1995 - 06/20/1998 FY98: \$10,000 Total: \$94,652 Prin. Invest.: J D MENIETTI Tech. Officer: MSFC/P D CRAVEN, MSFC/D L GALLAGHER CASE Category: 13 - PHYSICS</p> | <p>NAGW 4136 UNIVERSITY OF IOWA 4833 THE DEFINITION STUDY FOR IMPLEMENTATION OF THE IMA P MISSION 09/28/1994 - 08/11/1997 FY98: \$0 Total: \$50,000 Prin. Invest.: L A FRANK Tech. Officer: HQ/E C WHIPPLE, HQ/J D BOHLIN CASE Category: 13 - PHYSICS</p> |
| <p>NAG 8 1352 UNIVERSITY OF IOWA 4826 FOR RESEARCH "REAL TIME MONITORING OF PROTEIN CONCENTRATION IN SOLUTION TO CONTROL NUCLEATION... 06/02/1997 - 11/30/2000 FY98: \$151,396 Total: \$228,396 Prin. Invest.: M A ARNOLD Tech. Officer: MSFC/C R TALLEY, MSFC/B R FACEMIRE CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p> | <p>NAGW 4358 UNIVERSITY OF IOWA 4834 NEURAL CONTROL MECHANISMS AND BODY FLUID HOMEOSTASIS 03/18/1995 - 03/11/1997 FY98: \$0 Total: \$284,227 Prin. Invest.: A K JOHNSON Tech. Officer: HQ/F SULZMAN CASE Category: 59 - LIFE SCIENCE, OTHER</p> |
| <p>NAG 8 1386 UNIVERSITY OF IOWA 4827 RESEARCH " THERMODYNAMICS OF PROTEIN CRYSTALLIZA- TION AND LINKS TO CRYSTAL QUALITY" 06/23/1997 - 12/23/1998 FY98: \$150,000 Total: \$228,000 Prin. Invest.: J M WIENCEK Tech. Officer: MSFC/C TALLEY, MSFC/D REISS CASE Category: 12 - CHEMISTRY</p> | <p>NAGW 5051 UNIVERSITY OF IOWA 4835 COMPREHENSIVE INVESTIGATION OF 2FP RADIO EMISSIONS OBSERVED BY DE 1 IN THE DAYSIDE AND NIGHTSIDE 05/06/1996 - 12/31/1997 FY98: \$0 Total: \$73,000 Prin. Invest.: J MENIETTI Tech. Officer: HQ/ A M MELLOTT, HQ/G L WITHBORE CASE Category: 19 - MULTI INTERDISCIPL, OTHER</p> |
| <p>NAG 8 1425 UNIVERSITY OF IOWA 4828 R/S SHORT TERM QUANTITATIVE PRECIPITATION FORE- CASTING USING MULTI-SENSOR REMOTE SENSING AND ETA 01/14/1998 - 12/31/1998 FY98: \$56,470 Total: \$56,470 Prin. Invest.: W F KRAJEWSKI Tech. Officer: MSFC/J M SIMONDS CASE Category: 31 - ATMOSPHERIC SCIENCE</p> | <p>NAGW 5182 UNIVERSITY OF IOWA 4836 KINETIC ALFVEN WAVE ELECTRON ACCELERATION ON AURORAL FIELD LINES 09/06/1996 - 12/31/1997 FY98: \$0 Total: \$46,300 Prin. Invest.: C A FLETZING Tech. Officer: HQ/11 M MELLOTT, HQ/G L WITHBROE CASE Category: 19 - MULTI INTERDISCIPL, OTHER</p> |
| <p>NAG 9 824 UNIVERSITY OF IOWA 4829 STUDY OF PROSTATE CANCER 08/08/1995 - 08/24/1999 FY98: \$225,000 Total: \$905,000 Prin. Invest.: D W MURHAMMER Tech. Officer: JSC/N PELLIS CASE Category: 56 - MEDICAL</p> | <p>NAS 5 30316 UNIVERSITY OF IOWA 4837 MISSION OPS & DATA ANALYSIS VISIBLE IMAGING INVESTIGATION 02/06/1989 - 12/31/1998 FY98: \$1,105,000 Total: \$15,721,659 Prin. Invest.: L FRANK Tech. Officer: GSF/J GALLOWAY CASE Category: 13 - PHYSICS</p> |
| <p>NAGW 2040 UNIVERSITY OF IOWA 4830 NAGW-2040/UNIV OF IOWA/ELECTRON PLASMA WAVES IN PLANETARY FORESHOCKS 04/30/1990 - 09/30/1997 FY98: \$0 Total: \$434,000 Prin. Invest.: I H CAIRNS Tech. Officer: HQ/M M MELLOTT, HQ/T PERRY CASE Category: 13 - PHYSICS</p> | <p>NAS 5 30371 UNIVERSITY OF IOWA 4838 PLASMA WAVE INVESTIGATION PHASE C/D ISTP POLAR MISSION 12/29/1988 - 03/31/1999 FY98: \$1,518,080 Total: \$9,566,160 Prin. Invest.: D A G JRNETT Tech. Officer: GSF/D CROSBY CASE Category: 11 - PHYSICS</p> |
| <p>NAGW 3461 UNIVERSITY OF IOWA 4831 NAGW-3461/UNIV IOWA/PLASMA WAVES AND RADIATION GENERATED NEAR THE TERMINATION SHOCK 03/26/1993 - 09/30/1997 FY98: \$0 Total: \$148,000 Prin. Invest.: I CAIRNS Tech. Officer: HQ/W V JONES, HQ/G L WITHBROE CASE Category: 13 - PHYSICS</p> | <p>NAS 5 30730 UNIVERSITY OF IOWA 4839 ISTP PROJECT'S WIDEBAND PLASMA WAVE INVESTIGATION 01/30/1990 - 10/31/2001 FY98: \$722,013 Total: \$5,578,966 Prin. Invest.: D GUFFNETT Tech. Officer: GSF/J L CHRISTENSEN CASE Category: 31 - ATMOSPHERIC SCIENCE</p> |
| <p>NAGW 3576 UNIVERSITY OF IOWA 4832 MULTI ION, MULTI EVENT TEST OF ION CYCLOTRON RESONANCE HEAT- ING 05/05/1993 - 09/30/1997 FY98: \$0 Total: \$79,500 Prin. Invest.: A M PERSOON Tech. Officer: HQ/E C WHIPPLE, HQ/G L WITHBROE CASE Category: 13 - PHYSICS</p> | <p>NCC 8 94 UNIVERSITY OF IOWA 4840 EQUAXED DENDRITIC SOLIDIFICATION EXPERIMENT (EDSE) 05/31/1996 - 05/31/2000 FY98: \$107,000 Total: \$386,980 Prin. Invest.: C BECKERMANN Tech. Officer: MSFC/J FRAIZER, MSFC CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p> |

NASA'S UNIVERSITY PROGRAM

NGT 51321 UNIVERSITY OF IOWA **4841**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/14/1994 – 09/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: T RUS
Tech. Officer: HQ/P SMITH
CASE Category: 22 – COMPUTER SCIENCE

NGT 51351 UNIVERSITY OF IOWA **4842**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 – 09/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J A GOREE
Tech. Officer: HQ/G ALESANE
CASE Category: 13 – PHYSICS

NGT 51686 UNIVERSITY OF IOWA **4843**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/08/1996 – 06/30/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: J WIENCEK
Tech. Officer: HQ/G LESANE
CASE Category: 43 – CHEMICAL ENGR

NGT 70411 UNIVERSITY OF IOWA **4844**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/20/1995 – 06/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: J SCUDDER
Tech. Officer: HQ/D KRUSSELL
CASE Category: 13 – PHYSICS

NGT 5 30031 UNIVERSITY OF IOWA **4845**
VALIDATION OF RAINFALL ESTIMATES FROM SPACE-BORNE
 10/17/1996 – 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: W F KRAJEWSKI
Tech. Officer: GSFC/G ASRAR
CASE Category: 11 – ASTRONOMY

NGT 5 50139 UNIVERSITY OF IOWA **4846**
CHARACTERIZATION AND MEASUREMENT OF FORCE ON PARTIAL EXPERIMENT
 09/12/1997 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J GOREE
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50156 UNIVERSITY OF IOWA **4847**
MICROVASCULAR ALTERATIONS IN SIMULATED MICROGRAVITY
 09/11/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: C V GISOLFI
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 70009 UNIVERSITY OF IOWA **4848**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) PERIOD OF PERF. 7/1/97 – 6/30/98. FORMERLY NGT 70411
 10/17/1997 – 06/30/1998 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J SCUDDER
Tech. Officer: GSFC/STOUTSENBERGER
CASE Category: 13 – PHYSICS

NAG 5 3751 UNIVERSITY OF NORTHERN IOWA **4849**
ALTERED GRAVITY AND EARLY HEART DEVELOPMENT IN CUL
 03/10/1997 – 03/14/1998 FY98: \$0 Total: \$76,523
Prin. Invest.: D J WIENS
Tech. Officer: GSFC/T SCOTT/
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 8 265 UNIVERSITY OF NORTHERN IOWA **4850**
JOVE
 12/30/1992 – 03/15/1999 FY98: \$20,000 Total: \$94,621
Prin. Invest.: T A HOCKEY, D J WIENS
Tech. Officer: MSFC/F SIX
CASE Category: 31 – ATMOSPHERIC SCIENCE

KANSAS

NAG 5 2949 GARDEN COMMUNITY COLLEGE **4851**
SUPERNOVAE EFFECTS ON THE EARTH'S ATMOSPHERE
 05/25/1995 – 07/31/1998 FY98: \$0 Total: \$69,000
Prin. Invest.: G M LAIRD
Tech. Officer: GSFC/N GEHRELS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1503 KANSAS STATE UNIVERSITY **4852**
CRACK GROWTH PREDICTION METHODOLOGY FOR MULTI-SITE DAMAGE: LAYERED ANALYSIS AND GROWTH NLPN 93-210
 04/12/1993 – 11/11/1998 FY98: \$50,000 Total: \$278,896
Prin. Invest.: D V SWENSON
Tech. Officer: LARC/J C NEWMAN, LARC/C E HARRIS
CASE Category: 46 – MECHANICAL ENGR

NAG 2 1005 KANSAS STATE UNIVERSITY **4853**
EFFECTS OF MICROGRAVITY ON QUAIL EYE DEVELOPMENT
 08/23/1995 – 12/31/1997 FY98: \$0 Total: \$131,384
Prin. Invest.: G W CONRAD
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 2 1209 KANSAS STATE UNIVERSITY **4854**
MODEL CONSTRUCTION FOR FINITE STATE VERIFICATION: APPLICATION OF ABSTRACT INTERPRETATION & PARTIAL
 05/01/1998 – 03/31/1999 FY98: \$193,064 Total: \$193,064
Prin. Invest.: D A SCHMIDT
Tech. Officer: ARC/M R LOWRY
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 3885 KANSAS STATE UNIVERSITY **4855**
EFFECTS OF SILVER AND OTHER METALS ON THE CYTOSKEL
 03/06/1997 – 02/14/1998 FY98: \$0 Total: \$132,820
Prin. Invest.: G CONRAD
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 6213 KANSAS STATE UNIVERSITY **4856**
LAND-COVER CHANGE IN THE GREAT PLAINS: PREDICTING IMPACTS OF REGIONAL FOREST EXPANSION ON BIOGEOCH
 10/24/1997 – 01/31/2000 FY98: \$426,880 Total: \$426,880
Prin. Invest.: D JOHNSON
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

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| <p>NAG 9 872 KANSAS STATE UNIVERSITY 4857 EARTH OBSERVATIONS ON THE INTERNATIONAL SPACE STATION 06/16/1996 – 06/17/1998 FY98: -\$843 Total: \$9,157 Prin. Invest.: M D NELLIS Tech. Officer: JSC/K P LULLA CASE Category: 99 – MULTI-INTERDISCIPL, OTHER</p> | <p>NCC 5 234 KANSAS STATE UNIVERSITY 4865 ASPECTS AND CONTROL OF TIDAL SEDIMENTATION AND THE EXTRACTION AND MODELING OF TIDAL PARAMETERS FROM 12/12/1997 – 09/30/1999 FY98: \$50,000 Total: \$50,000 Prin. Invest.: A ARDHER Tech. Officer: GSF /B BILLS CASE Category: 13 – PHYSICAL SCIENCE, OTHER</p> |
| <p>NAGW 1111 KANSAS STATE UNIVERSITY 4858 PHOTOGEOLOGIC STUDY OF SELECTED FEATURES ON MARS 06/01/1987 – 09/30/1997 FY98: -\$1,507 Total: \$405,604 Prin. Invest.: J R UNDERWOOD Tech. Officer: HQ/D H SCOTT, HQ/J M BOYCE CASE Category: 32 – GEOLOGICAL SCIENCE</p> | <p>NGT 5 71 KANSAS STATE UNIVERSITY 4866 GSRP TRAINING GRANT – GEORGE NELSON – SHAPE TUNING OF EXTREMELY LARGE ORBITAL TELESCOPE MIRRORS 06/09/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000 Prin. Invest.: J A MAIN Tech. Officer: GSF/J M S BURRELL CASE Category: 43 – MECHANICAL ENGR</p> |
| <p>NAGW 2328 KANSAS STATE UNIVERSITY 4859 THE CENTER FOR GRAVITATIONAL STUDIES IN CELLULAR AND DEVELOPMENTAL BIOLOGY 02/12/1991 – 01/14/1998 FY98: \$0 Total: \$5,070,154 Prin. Invest.: B S SPOONER Tech. Officer: HQ/R J WHITE CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</p> | <p>NGT 5 50008 KANSAS STATE UNIVERSITY 4867 USING SPATIO-TEMPORAL HETEROGENEITY OF LANDCOVER C – SENSOR ANALYSIS OF A TALLGRASS PRAIRIE GRADIENT 11/25/1996 – 08/31/1997 FY98: \$0 Total: \$44,000 Prin. Invest.: J BRIDGES Tech. Officer: GSF/J A NURRIDIN CASE Category: 5 – BIOLOGY (EXCLUDING ENVIR)</p> |
| <p>NAG10 142 KANSAS STATE UNIVERSITY 4860 STARCH METABOLISM IN SPACE-GROWN SOYBEAN SEEDLINGS 07/15/1994 – 09/30/1998 FY98: \$0 Total: \$325,372 Prin. Invest.: J A GUIKEMA Tech. Officer: KSC/W M KNOTT CASE Category: 59 – LIFE SCIENCE, OTHER</p> | <p>NGT10 52616 KANSAS STATE UNIVERSITY 4868 A GRADUATE STUDENT RESEARCH PROGRAM 07/14/1998 – 07/30/1999 FY98: \$22,000 Total: \$22,000 Prin. Invest.: J UHLERIK Tech. Officer: KSC/A RUPE CASE Category: 21 – COMPUTER SCIENCE</p> |
| <p>NAG10 189 KANSAS STATE UNIVERSITY 4861 EFFECTS OF MICRO-G ON GENE EXPRESSION IN HIGHER PLANTS 03/28/1996 – 08/01/1998 FY98: -\$73,790 Total: \$124,750 Prin. Invest.: D LI Tech. Officer: KSC/W KNOTT CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</p> | <p>NAG 1 1735 UNIVERSITY OF KANSAS 4869 INTERIOR NOISE REDUCTION BY ADAPTIVE FEEDBACK VIBRATION CONTROL 07/05/1995 – 07/04/1998 FY98: \$0 Total: \$30,001 Prin. Invest.: T W LIMA Tech. Officer: LARC/R J SILCOX CASE Category: 41 – AERONAUTICAL ENGR</p> |
| <p>NCC 1 225 KANSAS STATE UNIVERSITY 4862 GENERALIZED PREDICTIVE AND NEURAL GENERALIZED PREDICTIVE CONTROL AEROSPACE SYSTEMS 05/07/1996 – 05/15/1999 FY98: \$42,800 Total: \$99,503 Prin. Invest.: A G KELKAR Tech. Officer: LARC/P J HALEY, ARC/D I SOLOWAY CASE Category: 21 – MATHEMATICS</p> | <p>NAG 1 1821 UNIVERSITY OF KANSAS 4870 AERODYNAMIC MODELING FOR AIRCRAFT IN UNSTEADY FLIGHT CONDITIONS 03/22/1996 – 09/30/1999 FY98: \$58,942 Total: \$140,168 Prin. Invest.: C E LAI Tech. Officer: LARC/I M BRANDON CASE Category: 41 – AERONAUTICAL ENGR</p> |
| <p>NCC 1 226 KANSAS STATE UNIVERSITY 4863 PASSIVITY-BASED ROBUST CONTROL OF AEROSPACE SYSTEMS 04/09/1996 – 04/08/1999 FY98: \$29,094 Total: \$95,094 Prin. Invest.: D G KELKAR Tech. Officer: LARC/D M JOSHI CASE Category: 41 – AERONAUTICAL ENGR</p> | <p>NAG 3 1805 UNIVERSITY OF KANSAS 4871 AN EXPERIMENTAL RESEARCH ON HOT-SUPERSONIC-MULTI-JET EJECTORS 02/28/1996 – 03/31/1998 FY98: \$0 Total: \$50,002 Prin. Invest.: R TAGH AVI Tech. Officer: LERC/ Q ZAMAN CASE Category: 46 – MECHANICAL ENGR</p> |
| <p>NCC 2 871 KANSAS STATE UNIVERSITY 4864 IMPACT OF GENERAL AVIATION ON THE CENTER-TRACON AUTOMATION SYSTEM (CTAS) 07/15/1994 – 06/30/1998 FY98: \$0 Total: \$172,314 Prin. Invest.: P J GORDER Tech. Officer: ARC/R K GREIF CASE Category: 41 – AERONAUTICAL ENGR</p> | <p>NAG 5 2358 UNIVERSITY OF KANSAS 4872 STUDIES OF MICROWAVE SCATTERING AND CANOPY ARCHITECTURE FOR BOREAL FORESTS: ACQUISITION AND... 09/13/1993 – 06/14/1998 FY98: \$0 Total: \$220,359 Prin. Invest.: P M RICH Tech. Officer: GSF/ G HALL, GSF/P J SELLERS CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</p> |

NAG 5 4039 UNIVERSITY OF KANSAS **4873**
PROBING LARGE SCALE STRUCTURE AND GALAXY FORMATION ABSORPTION SPECTRA
 02/26/1997 - 02/28/1999 FY98: \$0 Total: \$35,000
Prin. Invest.: D L MELOTT
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4358 UNIVERSITY OF KANSAS **4874**
STUDIES IN PLANETARY AERONOMY
 04/17/1997 - 03/31/1999 FY98: \$69,700 Total: \$136,700
Prin. Invest.: D E CRAVENS
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4523 UNIVERSITY OF KANSAS **4875**
SOLAR CYCLE TIME SCALE OBSERVATIONS OF INTERPLANET AND PROTONS
 05/08/1997 - 04/30/1998 FY98: \$0 Total: \$15,417
Prin. Invest.: D P ARMSTRONG
Tech. Officer: GSFC/J WILLETT
CASE Category: 11 - ASTRONOMY

NAG 5 4990 UNIVERSITY OF KANSAS **4876**
DEVELOPMENT OF LAND USE MAPPING AND PROTOCOL FOR T A MULTITEMPORAL REMOTE SENSING APPLICATION
 06/27/1997 - 06/14/1999 FY98: \$150,000 Total: \$290,431
Prin. Invest.: K P PRICE
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6345 UNIVERSITY OF KANSAS **4877**
MEASUREMENT OF THICKNESS OF THE GREENLAND ICE SHEET SCATTERING PROPERTIES OF GLACIAL ICE
 09/12/1997 - 08/14/1999 FY98: \$228,246 Total: \$391,548
Prin. Invest.: S D GOGINENI
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6518 UNIVERSITY OF KANSAS **4878**
AN INTERDISCIPLINARY CENTER OF EXCELLENCE IN ENVIRONMENTAL REMOTESENSING AT THE UNIVERSITY OF
 10/23/1997 - 12/31/1998 FY98: \$326,336 Total: \$326,336
Prin. Invest.: K P PRICE
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6608 UNIVERSITY OF KANSAS **4879**
A DATA SERVER AND PROCESSING FACILITY FOR GREENLAND ICE SHEET RADARSOUNDING MEASUREMENTS
 02/12/1998 - 12/31/1998 FY98: \$74,870 Total: \$74,870
Prin. Invest.: J M STILES
Tech. Officer: GSFC/R THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6766 UNIVERSITY OF KANSAS **4880**
STATISTICAL ALGORITHMS FOR THE ANALYSIS OF SPACE-BASED DATASETS
 01/15/1998 - 12/31/1998 FY98: \$36,600 Total: \$36,600
Prin. Invest.: K ASHMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7053 UNIVERSITY OF KANSAS **4881**
ANALYSIS OF AIRCRAFT LASER ALTIMETER DATA FROM GREENLAND
 02/25/1998 - 02/28/2001 FY98: \$24,982 Total: \$24,982
Prin. Invest.: D A BRAATEN
Tech. Officer: GSFC/R THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7516 UNIVERSITY OF KANSAS **4882**
TRACKING INTERNAL LAYERS OF THE GREENLAND ICE SHEET USING AIRBORNE RADIO ECHO SOUNDER IMAGES
 06/04/1998 - 05/31/1999 FY98: \$29,987 Total: \$29,987
Prin. Invest.: J GAUCH
Tech. Officer: GSFC/W ABDALATI
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 1588 UNIVERSITY OF KANSAS **4883**
STUDIES IN PLANETARY AERONOMY
 12/28/1988 - 08/15/1998 FY98: \$0 Total: \$488,331
Prin. Invest.: T E CRAVENS
Tech. Officer: HQ/J T BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAGW 3700 UNIVERSITY OF KANSAS **4884**
MEASUREMENT OF THICKNESS OF THE GREENLAND ICE SHEET AND INVESTIGATION OF SCATTERING PROPERTIES
 08/10/1993 - 11/15/1997 FY98: \$0 Total: \$575,199
Prin. Invest.: S P GOGINENI
Tech. Officer: HQ/R H THOMAS, HQ/J S THEON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3810 UNIVERSITY OF KANSAS **4885**
NAGW-3810/B UNIV KANSAS "DEV. OF A LAND USE MAPPING AND MONITORING." 1/1/94 START
 11/19/1993 - 09/15/1997 FY98: \$0 Total: \$446,956
Prin. Invest.: K P PRICE, M D NELLIS
Tech. Officer: HQ/A J TUYAHOV, HQ/S R SCHNEIDER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3832 UNIVERSITY OF KANSAS **4886**
PROBING LARGE SCALE STRUCTURE AND GALAXY INFO
 12/14/1993 - 09/30/1997 FY98: \$0 Total: \$105,000
Prin. Invest.: A L MELOTT
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NCC 5 168 UNIVERSITY OF KANSAS **4887**
KANSAS SPACE AND LIFE SCIENCES, GEOPHYSICAL INFORMATION AERONAUTICS AND FLIGHT ENGINEERING TECHNOLOGY (K-)
 01/27/1997 - 12/31/1998 FY98: \$500,000 Total: \$1,000,000
Prin. Invest.: D R DOWNING
Tech. Officer: GSFC/J DASCH
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

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| NGT 40026 UNIVERSITY OF KANSAS 4888 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM 04/30/1991 – 09/30/1997 FY98: \$0 Total: \$984,000 <i>Prin. Invest.:</i> D R DOWNING <i>Tech. Officer:</i> HQ/E T SCHWARTZ <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | NAG 3 1775 WICHITA STATE UNIVERSITY 4896 RESEARCH PROGRAM TO MODERNIZE AND EXPAND THE WATER IMPINGEMENT DATA BASE FOR AIRCRAFT SURFACE – PHASE 08/07/1995 – 03/31/1999 FY98: –\$990 Total: \$118,191 <i>Prin. Invest.:</i> D PAPAOKAKIS <i>Tech. Officer:</i> LERC/C S BIDWELL <i>CASE Category:</i> 41 – AERONAUTICAL ENGR |
| NGT 5 30029 UNIVERSITY OF KANSAS 4889 RADAR INTERFEROMETRY FOR IMPROVED CROSS-TRACT RESO OF THE THICKNESS OF THE GREENLAND ICE SHEET 10/17/1996 – 08/31/1999 FY98: \$22,000 Total: \$66,000 <i>Prin. Invest.:</i> S GOGINENI <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 11 – ASTRONOMY | NAG 3 1914 WICHITA STATE UNIVERSITY 4897 STUDENT INTERN PROG IN MICROGRAVITY COMBUSTION/FLAME CHEMISTRY RESEARCH PROJECT 07/05/1996 – 03/12/1997 FY98: –\$1,651 Total: \$22,195 <i>Prin. Invest.:</i> D N KOERT <i>Tech. Officer:</i> LERC/D L DIETRICH, LERC/H D ROSS <i>CASE Category:</i> 46 – MECHANICAL ENGR |
| NGT 5 40033 UNIVERSITY OF KANSAS 4890 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM. 02/13/1997 – 09/15/1998 FY98: \$0 Total: \$170,000 <i>Prin. Invest.:</i> D R DOWNING <i>Tech. Officer:</i> HQ/J DASCH <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | NAG 3 1985 WICHITA STATE UNIVERSITY 4898 MODERNIZE AND EXPAND THE WATER IMPINGEMENT DATA BASE FOR AIRCRAFT SURFACES 11/12/1996 – 11/30/1999 FY98: \$61,803 Total: \$223,220 <i>Prin. Invest.:</i> M PAPAOKAKIS <i>Tech. Officer:</i> LERC/C S BIDWELL <i>CASE Category:</i> 41 – AERONAUTICAL ENGR |
| NGT 5 40065 UNIVERSITY OF KANSAS 4891 KANSAS/NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM 09/16/1998 – 03/31/1999 FY98: \$212,500 Total: \$212,500 <i>Prin. Invest.:</i> D R DOWNING <i>Tech. Officer:</i> HQ/J DASCH <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | NAG 3 2137 WICHITA STATE UNIVERSITY 4899 PILOT SIMULATOR TRAINING FOR AIRCRAFT ICING PILOT SIMULATOR TRAINING FOR AIRCRAFT ICING 03/06/1998 – 10/31/1998 FY98: \$154,889 Total: \$154,889 <i>Prin. Invest.:</i> D ELLIS, M PAPAOKAKIS <i>Tech. Officer:</i> LERC/T H BOND <i>CASE Category:</i> 41 – AERONAUTICAL ENGR |
| NGT 5 50073 UNIVERSITY OF KANSAS 4892 A HIGH RESOLUTION RADAR CHARACTERIZATION OF ICE IN TERRESTRIAL LIFE 08/26/1997 – 07/31/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> R G PLUMB <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | NAG 5 3435 WICHITA STATE UNIVERSITY 4900 SPECTROSCOPY: PROPERTIES OF SUB STELLAR OBJECTS 10/01/1996 – 09/30/1998 FY98: \$73,000 Total: \$148,000 <i>Prin. Invest.:</i> F AL LARD <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 – ASTRONOMY |
| NGT 5 50161 UNIVERSITY OF KANSAS 4893 ESTIMATING SOIL MOISTURE OVER 4 TALLGRASS PRAIRIE USING ERS-2 SAR 10/02/1997 – 08/31/1999 FY98: \$44,000 Total: \$44,000 <i>Prin. Invest.:</i> J HARRINGTON <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | NCA 1 106 WICHITA STATE UNIVERSITY 4901 GENERAL AVIATION PROGRAM/AGATE 02/24/1995 – 10/31/1998 FY98: \$1,063,795 Total: \$2,469,974 <i>Prin. Invest.:</i> H WILFORD, D ELLIS <i>Tech. Officer:</i> LARC/W E RICKS <i>CASE Category:</i> 41 – AERONAUTICAL ENGR |
| NGT 5 50219 UNIVERSITY OF KANSAS 4894 DEVELOPMENT OF RADAR SYSTEM FOR ACCUMULATION MEASUREMENTS OF STUDENT: PANNIRSELVAM 09/17/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> G S PRASAD <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER | NCA 3 111 WICHITA STATE UNIVERSITY 4902 JOINT SPONSORED RESEARCH AGREEMENT – ICING RESEARCH 02/22/1996 – 12/31/1998 FY98: \$260,889 Total: \$383,501 <i>Prin. Invest.:</i> D ELLIS <i>Tech. Officer:</i> LERC/T H BOND <i>CASE Category:</i> 41 – AERONAUTICAL ENGR |
| NAG 2 1016 UNIVERSITY OF KANSAS MEDICAL CENTER 4895 MICROGRAVITY & SIGNAL TRANSDUCTION PATHWAYS IN SPERM 10/12/1995 – 08/31/1999 FY98: \$179,037 Total: \$484,447 <i>Prin. Invest.:</i> J S TASH <i>Tech. Officer:</i> ARC/C M WINGET, ARC/G C JANHS <i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR) | NCC 3 624 WICHITA STATE UNIVERSITY 4903 TAILPLANE ICING PROGRAM – PHASE II TAILPLANE ICING PROGRAM – PHASE II 06/08/1998 – 11/30/1998 FY98: \$99,985 Total: \$99,985 <i>Prin. Invest.:</i> M PAPAOKAKIS, D ELLIS <i>Tech. Officer:</i> LERC/T P RATVASKY <i>CASE Category:</i> 41 – AERONAUTICAL ENGR |

KENTUCKY

NAG 9 906 EASTERN KENTUCKY UNIVERSITY **4904**
EXCAVATION IN REDUCED GRAVITY ENVIRONMENT
 09/19/1996 – 01/31/1999 FY98: \$0 Total: \$5,000
Prin. Invest.: W BOLES
Tech. Officer: JSC/J CONNOLLY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1119 MOREHEAD STATE UNIVERSITY **4905**
JOVE
 01/10/1995 – 05/31/1997 FY98: \$0 Total: \$79,000
Prin. Invest.: B MALPHRUS, A MARTIN
Tech. Officer: MSFC/F SIX
CASE Category: 11 – ASTRONOMY

NAG 2 1121 UNIVERSITY OF KENTUCKY **4906**
CARBON NANOTUBULES: BUILDING BLOCKS FOR NANOMETER –SCALE ENGINEERING
 02/25/1997 – 12/31/1998 FY98: \$46,548 Total: \$88,028
Prin. Invest.: S B SINNOTT
Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 2 1208 UNIVERSITY OF KENTUCKY **4907**
QUANTUM MOLECULAR DYNAMIC SIMULATIONS OF NANOTUBE TIP ASSISTED REACTIONS
 04/30/1998 – 09/30/1998 FY98: \$25,000 Total: \$25,000
Prin. Invest.: M MENON
Tech. Officer: ARC/S SAINI
CASE Category: 13 – PHYSICS

NAG 3 2018 UNIVERSITY OF KENTUCKY **4908**
TRANSITION & TURBULENCE MODELING OF LOW PRESSURE TURBINE FLOWS
 03/12/1997 – 11/30/1997 FY98: \$0 Total: \$35,023
Prin. Invest.: P G HUANG
Tech. Officer: LERC/D E ASHPIS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2099 UNIVERSITY OF KENTUCKY **4909**
LARGE EDDY SIMULATION OF FLOWS IN TURBINE CASCADES USING CONSERVATIVE UPWIND-BIASED 5TH ORDER NUMBER
 12/23/1997 – 11/30/2000 FY98: \$89,504 Total: \$89,504
Prin. Invest.: P G HVANG
Tech. Officer: LERC/D E ASHPIS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 3010 UNIVERSITY OF KENTUCKY **4910**
A SUPPLEMENTAL CATALOGUE OF IRAS CIRCUMSTELLAR SHELLS MIS NO. 9501190844
 07/18/1995 – 07/31/1998 FY98: \$0 Total: \$176,000
Prin. Invest.: M ELITZUR
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3223 UNIVERSITY OF KENTUCKY **4911**
PROBING THE CENTRAL REGIONS OF ACTIVE NUCLEI
 05/15/1996 – 05/31/1999 FY98: \$0 Total: \$183,880
Prin. Invest.: FERLAND
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3841 UNIVERSITY OF KENTUCKY **4912**
GAS DYNAMICS IN ACTIVE GALACTIC NUCLEI: BROAD LINE
 02/28/1997 – 02/14/1999 FY98: \$56,600 Total: \$123,000
Prin. Invest.: I SHLOSMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4235 UNIVERSITY OF KENTUCKY **4913**
THEORETICAL STUDIES OF INFRARED EMISSION FROM STARS
 03/24/1997 – 03/31/1999 FY98: \$94,300 Total: \$154,500
Prin. Invest.: G J FERLAND
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4510 UNIVERSITY OF KENTUCKY **4914**
PROBING LOW IONIZATION GAS IN STARS & AGNS: THE SPECTRA
 05/29/1997 – 01/31/1998 FY98: \$0 Total: \$9,559
Prin. Invest.: G J FERLAND
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4594 UNIVERSITY OF KENTUCKY **4915**
IN-SITU, REMOTE CHEMICAL SENSORS BASED ON THIN FILM MAGNETIC
 05/12/1997 – 05/14/1999 FY98: \$121,273 Total: \$250,021
Prin. Invest.: C A GRIMES
Tech. Officer: GSFC/G FOGLEMAN
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 8 1317 UNIVERSITY OF KENTUCKY **4916**
ADVANCED INFLATABLE STRUCTURES FOR AEROSPACE
 01/14/1997 – 12/31/1998 FY98: \$0 Total: \$250,000
Prin. Invest.: J MAIN
Tech. Officer: MSFC/B EMRICH
CASE Category: 42 – ASTRONAUTICAL ENGR

NAGW 3786 UNIVERSITY OF KENTUCKY **4917**
VALIDATION OF SPECTRAL ANALYSIS AS A NONINVASIVE
 09/30/1993 – 12/31/1996 FY98: -\$2,146 Total: \$177,854
Prin. Invest.: C F KNAPP
Tech. Officer: HQ/F M SULZMAN
CASE Category: 56 – MEDICAL

NAGW 3839 UNIVERSITY OF KENTUCKY **4918**
NAGW-3839/B UNIV. KENT. RES. FDTN. "PHYSICS OF ACCRETION DISK WINDS..." 1/1/94 START
 12/17/1993 – 06/30/1997 FY98: -\$868 Total: \$89,132
Prin. Invest.: I SHLOSMAN
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILLER
CASE Category: 11 – ASTRONOMY

NCC 2 5131 UNIVERSITY OF KENTUCKY **4919**
PNEUMATIC SOIL SAMPLER FIELD TEST
 06/01/1995 – 03/31/1997 FY98: -\$816 Total: \$9,175
Prin. Invest.: J SCHAEFER, J STENCEL, J NEATHERY
Tech. Officer: ARC/G BRIGGS, ARC/C MCKAY
CASE Category: 42 – ASTRONAUTICAL ENGR

NCC 2 5193 UNIVERSITY OF KENTUCKY **4920**
TEMPERATURE FLUCTUATIONS IN THE ORION NEBULA AND NEBULAR ABUNDANCE SCALE
 11/01/1996 – 05/31/1999 FY98: \$27,451 Total: \$53,987
Prin. Invest.: D J FERLAND
Tech. Officer: ARC/D GOORITCH
CASE Category: 11 – ASTRONOMY

NCC 3 590 UNIVERSITY OF KENTUCKY **4921**
TURBULENCE & TRANSITION MODELING OF LOW PRESSURE TURBINE FLOWS
 12/17/1997 - 10/31/1998 FY98: \$77,002 Total: \$77,002
Prin. Invest.: G HUANG
Tech. Officer: LERC/D E ASHPIS
CASE Category: 41 - AERONAUTICAL ENGR

NGT 40049 UNIVERSITY OF KENTUCKY **4922**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 07/24/1991 - 02/28/1998 FY98: \$0 Total: \$999,000
Prin. Invest.: R HACKNEY
Tech. Officer: HQ/E SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 1 52146 UNIVERSITY OF KENTUCKY **4923**
GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 07/22/1996 - 09/30/1998 FY98: \$0 Total: \$33,000
Prin. Invest.: K D DIPPERY, S W SMITH
Tech. Officer: LARC/M G GILBERT
CASE Category: 41 - AERONAUTICAL ENGR

NGT 8 52869 UNIVERSITY OF KENTUCKY **4924**
INVESTIGATING THE EFFECTS OF FOAM INFLATED DEPLOYABLE SPACE-CRAFT STRUCTURES
 07/27/1998 - 08/13/2000 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J A MAIN
Tech. Officer: MSFC/J F DOWDY
CASE Category: 46 - MECHANICAL ENGR

NAG 5 3374 UNIVERSITY OF LOUISVILLE **4925**
DEVELOPMENT OF GAS MICROSTRUCTURE DETECTORS FOR ASTROPHYSICS
 08/28/1996 - 08/31/1997 FY98: \$0 Total: \$10,000
Prin. Invest.: W K PITTS
Tech. Officer: GSFC/R C HARTMAN, GSFC/S D HUNTER
CASE Category: 11 - ASTRONOMY

NAG 5 5142 UNIVERSITY OF LOUISVILLE **4926**
DEVELOPMENT OF GAS MICROSTRUCTURE DETECTORS FOR GAMMA-RAY TELESCOPES
 04/21/1997 - 03/31/1999 FY98: \$124,484 Total: \$264,284
Prin. Invest.: W PITTS
Tech. Officer: GSFC/H NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6913 UNIVERSITY OF LOUISVILLE **4927**
GENERAL CIRCULATION OF PLANETARY ATMOSPHERES
 01/26/1998 - 12/31/1998 FY98: \$90,000 Total: \$90,000
Prin. Invest.: T E DOWLING
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 8 1509 UNIVERSITY OF LOUISVILLE **4928**
SHORT TERM QUANTITATIVE PRECIPITATION FORECASTING USING MULTI-SENSOR REMOTE SENSING AND ETA MODEL
 03/04/1998 - 02/02/2000 FY98: \$49,541 Total: \$49,541
Prin. Invest.: M N FRENCH
Tech. Officer: MSFC/J SIMONDS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4031 UNIVERSITY OF LOUISVILLE **4929**
"SPACE BIOLOGY RESEARCH ASSOCIATES PROGRAM"
 06/22/1994 - 09/30/1997 FY98: -\$47,819 Total: \$638,885
Prin. Invest.: G S ONNENFELD
Tech. Officer: HC/T W HALSTEAD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 5042 UNIVERSITY OF LOUISVILLE **4930**
CYTOCHROME P450: COMPARISON OF FLIGHT AND SUSPENSION
 04/22/1996 - 04/10/1997 FY98: \$0 Total: \$15,394
Prin. Invest.: J M STEFFEN
Tech. Officer: HQ/V THORNE
CASE Category: 56 - MEDICAL

NCC 1 261 UNIVERSITY OF LOUISVILLE **4931**
RESEARCH AND DEVELOPMENT ON RAPID DESIGN SYSTEMS FOR AEROSPACE STRUCTURES
 07/18/1997 - 07/31/1998 FY98: \$75,544 Total: \$105,544
Prin. Invest.: H G SCHAEFFER
Tech. Officer: LAF/C/J M HOUSNER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 2595 WESTERN KENTUCKY UNIVERSITY **4932**
UNDERREPRESENTED MINORITIES AND ASTROPHYSICS
 05/11/1994 - 05/11/1997 FY98: \$0 Total: \$430,281
Prin. Invest.: C H ACGRUDER
Tech. Officer: GSFC/C J CRANNELL
CASE Category: 11 - ASTRONOMY

NAG 5 3822 WESTERN KENTUCKY UNIVERSITY **4933**
AN EXTENDED OBSERVATION OF BLAZAR 3C 279
 01/24/1997 - 01/31/1998 FY98: \$0 Total: \$4,124
Prin. Invest.: M CARINI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 1 - ASTRONOMY

NAG 5 7326 WESTERN KENTUCKY UNIVERSITY **4934**
A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 04/24/1998 - 04/30/1999 FY98: \$1,497 Total: \$1,497
Prin. Invest.: M CARINI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 1 - ASTRONOMY

NCC 5 222 WESTERN KENTUCKY UNIVERSITY **4935**
TO SUPPORT THE KENTUCKY NASA EXPERIMENTAL PROGRAM COMPETITIVE RESEARCH
 08/11/1997 - 06/30/1999 FY98: \$500,000 Total: \$1,000,000
Prin. Invest.: R HACKNEY
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCCW 60 WESTERN KENTUCKY UNIVERSITY **4936**
EPSCOR PROGRAM
 06/21/1994 - 12/31/1997 FY98: \$0 Total: \$1,500,000
Prin. Invest.: R HACKNEY
Tech. Officer: HQ/L KEFFER, HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40051 WESTERN KENTUCKY UNIVERSITY **4937**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 01/30/1997 - 02/28/2000 FY98: \$322,784 Total: \$527,784
Prin. Invest.: R HACKNEY
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL. OTHER

LOUISIANA

NAG 8 1392 GRAMBLING STATE UNIVERSITY **4938**
R/S "NLO POLYMERS THAT HAVE ENHANCED THERMAL STABILITY AND
LOW ALIGNMENT DECAY"
 07/23/1997 - 07/22/1998 FY98: \$0 Total: \$99,960
Prin. Invest.: C WALTON
Tech. Officer: MSFC/B PENN
CASE Category: 11 - ASTRONOMY

NCC 3 512 GRAMBLING STATE UNIVERSITY **4939**
POLYMERIZABLE MONOMER REACTANTS-MODIFIED POLYIMIDES
 11/04/1996 - 10/28/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: D E HUBBARD
Tech. Officer: LERC/M A MEADOR
CASE Category: 12 - CHEMISTRY

NAG 1 1672 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4940**
EFFICIENT PARALLEL KERNEL SOLVERS FOR COMPUTATIONAL FLUID
DYNAMICS APPLICATION
 01/18/1995 - 08/14/1997 FY98: -\$1 Total: \$60,000
Prin. Invest.: X H SUN
Tech. Officer: LARC/S MOLTRA
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 2 1020 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4941**
DEVELOPMENTAL ANALYSIS OF SEEDS GROWN ON MIR
 01/18/1996 - 11/30/1998 FY98: \$166,792 Total: \$371,575
Prin. Invest.: M E MUSGRAVE
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1212 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4942**
PARALLEL MOLECULAR DYNAMICS SIMULATIONS OF ATOMIC NANOS-
STRUCTURES ON SILICON & DIAMOND SURFACES
 05/01/1998 - 09/30/1998 FY98: \$30,000 Total: \$30,000
Prin. Invest.: R KALIA, P VASHISTA
Tech. Officer: ARC/S SAINI
CASE Category: 13 - PHYSICS

NAG 2 1248 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4943**
SCALABLE ALGORITHMS FOR COMPUTATIONAL NANO-ELECTRONICS ON
THE INFORMATION-POWER GRID
 08/10/1998 - 10/31/1998 FY98: \$95,000 Total: \$95,000
Prin. Invest.: A NAKANO
Tech. Officer: ARC/S SAINI
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 1641 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4944**
LARGE EDDY SIMULATIONS IMPROVED TURBULENCE MODELING OF FILM
COOLING
 07/12/1994 - 09/30/1998 FY98: \$80,778 Total: \$249,532
Prin. Invest.: S ACHARYA
Tech. Officer: LERC/J R SCHWAB
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3082 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4945**
ACCRETION ONTO MAGNETIC DEGENERATE STARS
 09/22/1995 - 09/30/1999 FY98: \$57,943 Total: \$173,943
Prin. Invest.: G CHANMUGAM
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3338 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4946**
UNDERSTANDING THE EVOLUTION OF H-DEFICIENT STARS
 11/13/1996 - 11/14/1998 FY98: \$0 Total: \$39,800
Prin. Invest.: G C CLAYTON
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3531 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4947**
DO WE NEED REALISTIC MODELING OF COMPOSITE INTERSTELLAR
DUST GRAINS
 11/15/1996 - 11/14/1998 FY98: \$74,000 Total: \$148,000
Prin. Invest.: G C CLAYTON
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3756 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4948**
MICROGRAVITY EFFECTS ON EARLY REPRODUCTIVE DEVELOP
 12/05/1996 - 09/30/1997 FY98: \$0 Total: \$63,157
Prin. Invest.: M A MUSGRAVE
Tech. Officer: GSFC/V S SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3770 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4949**
ADVANCED CALORIMETER FOR COMPOSITION OF ELEMENTS OF COSMIC
TO STUDY > 10 TEV COSMIC RAYS
 03/07/1997 - 01/31/1999 FY98: \$0 Total: \$65,736
Prin. Invest.: D P WEFEL
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 4154 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4950**
A SPDS NODE TO SUPPORT THE SYSTEMATIC INTERPRETATION
 03/17/1997 - 08/31/1998 FY98: \$0 Total: \$18,441
Prin. Invest.: D G GUZIK
Tech. Officer: GSFC/J WILLETT
CASE Category: 13 - PHYSICS

NAG 5 5064 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4951**
THE ADVANCED THIN IONIZATION CALORIMETER (ATIC) BALLOON
EXPERIMENT
 05/03/1996 - 03/31/1999 FY98: \$690,000 Total: \$1,451,000
Prin. Invest.: J P WEFEL
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 5127 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4952**
MINUTE OF ARC RESOLUTION GAMMA-RAY IMAGING EXPERIMENT (MARGIE)
 07/02/1997 - 03/31/1999 FY98: \$50,000 Total: \$100,000
Prin. Invest.: M CHERRY
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5177 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4953**
TRANSITION RADIATION DETECTORS FOR HIGH ENERGY MEASUREMENTS ON ACCESS
 04/24/1998 - 03/31/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: M L CHERRY
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5208 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4954**
ULTRA-LONG DURATION MISSION CONCEPT FOR PROPOSAL FOR A MINUTE-OF-ARC RESOLUTION GAMMA-RAY EXPERIMENT
 09/24/1998 - 11/30/1999 FY98: \$221,140 Total: \$221,140
Prin. Invest.: M CHERRY
Tech. Officer: WFF/B A MERRITT
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 7355 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4955**
A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS
 04/29/1998 - 04/30/1999 FY98: \$2,500 Total: \$2,500
Prin. Invest.: J STACY
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 9 714 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4956**
CATABOLIC EFFECTS OF WEIGHTLESSNESS & PROPOSED COUNTERMEASURE
 09/29/1993 - 08/31/1998 FY98: \$200,000 Total: \$1,569,000
Prin. Invest.: G A BRAY
Tech. Officer: JSC/H LANE
CASE Category: 56 - MEDICAL

NAG 9 860 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4957**
ASTROCULTURE METABOLISM AND ULTRASTRUCTURE ANALYSIS
 01/31/1996 - 08/11/1998 FY98: \$0 Total: \$10,010
Prin. Invest.: D MUSGRAVE, D PORTERFIELD
Tech. Officer: JSC/D J BARTA
CASE Category: 55 - AGRICULTURE

NAGW 1526 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4958**
THE SYSTEMATIC INTERPRETATION OF COSMIC RAY DATA
 12/14/1988 - 09/30/1997 FY98: \$0 Total: \$934,652
Prin. Invest.: T G GUZIK
Tech. Officer: HQ/M M MELLOTT, HQ/W V JONES
CASE Category: 13 - PHYSICS

NAGW 3744 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4959**
DESIGN AND DEVELOPMENT FOR A MINUTE-OF-ARC RESOLUTION GAMMA RAY IMAGING EXPERIMENT
 09/29/1993 - 03/31/1997 FY98: \$0 Total: \$185,000
Prin. Invest.: M L CHERRY
Tech. Officer: HQ/L J KALUZIENSKI, HQ/A N BUNNER
CASE Category: 11 - ASTRONOMY

NAGW 4221 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4960**
A GEOGRAPHIC INFORMATION SYSTEM FOR THE CHARACTERIZATION & MODELING OF MULTISCALE SENSING
 12/20/1994 - 08/31/1997 FY98: \$0 Total: \$159,904
Prin. Invest.: N L LAM
Tech. Officer: HC/R S MCGINNIS
CASE Category: 22 - COMPUTER SCIENCE

NAGW 4404 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4961**
A SPDS NODE TO SUPPORT THE SYSTEMATIC INTERPRETATION OF COSMIC RAY DATA
 04/04/1995 - 07/11/1997 FY98: -\$47 Total: \$44,500
Prin. Invest.: T G GUZIK
Tech. Officer: HQ/J WILLEH
CASE Category: 13 - PHYSICS

NAGW 4577 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4962**
ADVANCED THIN IONIZATION CALORIMETER (ATIC)
 06/28/1995 - 03/31/1998 FY98: \$0 Total: \$747,467
Prin. Invest.: J P WEFEL
Tech. Officer: HQ/W V JONES, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG10 139 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4963**
PLANT REPRODUCTIVE DEVELOPMENT IN MICROGRAVITY
 06/07/1994 - 11/30/1998 FY98: \$60,000 Total: \$527,508
Prin. Invest.: M E MUSGRAVE
Tech. Officer: KSC/W M KNOTT
CASE Category: 55 - AGRICULTURE

NCC 3 435 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4964**
NUMERICAL STUDY OF MAGNETIC DUMPING DIRECTIONAL SOLIDIFICATION
 10/01/1995 - 08/31/1997 FY98: \$1,414 Total: \$14,994
Prin. Invest.: B QILI
Tech. Officer: LER/IN AVAILABLE
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 5 167 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4965**
NASA EPSCOR PROGRAM
 11/02/1996 - 05/31/1999 FY98: \$500,000 Total: \$1,500,000
Prin. Invest.: J P WEFEL
Tech. Officer: GSF/L KEFFER
CASE Category: 53 - MULTI INTERDISCIPL, OTHER

NCCW 59 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4966**
EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RES
 07/01/1994 - 05/31/1997 FY98: \$0 Total: \$1,000,000
Prin. Invest.: J P WEFEL, E GOODELL
Tech. Officer: HQ/L KEFFER, HQ/E T SCHWARTZ
CASE Category: 91 - MULTI INTERDISCIPL, OTHER

NGT 40039 LOUISIANA STATE UNIVERSITY - BATON ROUGE **4967**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 04/10/1991 - 09/30/1997 FY98: -\$13,298 Total: \$1,165,702
Prin. Invest.: J P WEFEL
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 91 - MULTI INTERDISCIPL, OTHER

NASA'S UNIVERSITY PROGRAM

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| NGT 51215 LOUISIANA STATE UNIVERSITY – BATON ROUGE 4968 GRADUATE STUDENT RESEARCHERS PROGRAM 04/25/1994 – 06/30/1997 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> D D ADRIAN <i>Tech. Officer:</i> HQ/E MASSEY <i>CASE Category:</i> 49 – ENGINEERING, OTHER | NGT 5 90004 LOUISIANA TECH UNIVERSITY 4976 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR) 02/03/1997 – 08/14/1997 FY98: \$0 Total: \$24,000 <i>Prin. Invest.:</i> F AKL <i>Tech. Officer:</i> GSFC/R LAWRENCE <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER |
| NGT 5 40035 LOUISIANA STATE UNIVERSITY – BATON ROUGE 4969 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM. 02/13/1997 – 02/28/1999 FY98: \$256,250 Total: \$461,250 <i>Prin. Invest.:</i> J P WEFEL <i>Tech. Officer:</i> GSFC/L KEFFER <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | NGT13 52700 LOUISIANA TECH UNIVERSITY 4977 TRAINING GRANT THERMAL INSULATION SYSTEM FOR LARGE FLAME BUCKETS 06/22/1995 – 12/31/1997 FY98: -\$348 Total: \$43,652 <i>Prin. Invest.:</i> J L MAXWELL <i>Tech. Officer:</i> SSC/JOYCE <i>CASE Category:</i> 49 – ENGINEERING, OTHER |
| NGT 9 10 LOUISIANA STATE UNIVERSITY – BATON ROUGE 4970 SPACECRAFT 07/03/1996 – 06/30/1998 FY98: \$0 Total: \$29,770 <i>Prin. Invest.:</i> D F DAY <i>Tech. Officer:</i> JSC/D G SICKOREZ <i>CASE Category:</i> 54 – ENVIRONMENTAL BIOLOGY | NCC 3 471 MCNEESE STATE UNIVERSITY 4978 SUPPORT OF AIRS AND MIM FOR ISOLATION OF SPACE SCI ENCE EXP: DYNAMIC MODELING, OPTIMAL CONTROLLER SY 05/01/1996 – 08/24/1998 FY98: -\$14,000 Total: \$71,264 <i>Prin. Invest.:</i> D HAMPTON <i>Tech. Officer:</i> LERC/D M GRODSINSKY <i>CASE Category:</i> 46 – MECHANICAL ENGR |
| NGT13 52701 LOUISIANA STATE UNIVERSITY – BATON ROUGE 4971 TRAINING GRANT – FLUX IN MARSHES SAME 06/23/1995 – 07/31/1997 FY98: -\$811 Total: \$43,189 <i>Prin. Invest.:</i> J CRUISE <i>Tech. Officer:</i> SSC/JOYCE <i>CASE Category:</i> 49 – ENGINEERING, OTHER | NAG 5 4293 NORTHEAST LOUISIANA UNIVERSITY 4979 ANCIENT CRUST AND LACUSTRINE PLAIN SITES FOR MARS 04/18/1997 – 03/31/1999 FY98: \$0 Total: \$30,000 <i>Prin. Invest.:</i> D A DE HON <i>Tech. Officer:</i> GSFC/J M BOYCE <i>CASE Category:</i> 11 – ASTRONOMY |
| NGT13 52703 LOUISIANA STATE UNIVERSITY – BATON ROUGE 4972 TRAINING GRANT – HIGH RESOLUTION CLOUD AND SEA SURFACE TEMPERATURE CLIMATOLOGY 06/23/1995 – 08/01/1997 FY98: -\$8,037 Total: \$35,963 <i>Prin. Invest.:</i> L ROUSE, JR. <i>Tech. Officer:</i> SSC/JOYCE <i>CASE Category:</i> 49 – ENGINEERING, OTHER | NAG 8 1206 SOUTHEASTERN LOUISIANA UNIVERSITY 4980 JOVE 09/25/1995 – 08/31/1998 FY98: \$0 Total: \$110,620 <i>Prin. Invest.:</i> C W STEIDLEY, W A PARKINSON, W N NORTON <i>Tech. Officer:</i> MSFC/D SIX <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER |
| NGT13 72701 LOUISIANA STATE UNIVERSITY – BATON ROUGE 4973 TRAINING GRANT – THE USE OF REMOTE SENSING TECHNIQUES TO IDENTIFY SOIL TYPES 06/23/1995 – 05/31/1997 FY98: -\$2,122 Total: \$30,878 <i>Prin. Invest.:</i> W HUDNALL <i>Tech. Officer:</i> SSC/JOYCE <i>CASE Category:</i> 49 – ENGINEERING, OTHER | NAG10 131 SOUTHEASTERN LOUISIANA UNIVERSITY 4981 INVENTORY & MONITORING OF HERPETOLOGICAL COMMUNIT- IES ON KSC/MERRITT IS NATIONAL WILDLIFE REFUGE 12/10/1993 – 02/15/1998 FY98: \$0 Total: \$56,748 <i>Prin. Invest.:</i> R A SEIGEL <i>Tech. Officer:</i> KSC/W M KNOTT <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER |
| NAG 1 1844 LOUISIANA TECH UNIVERSITY 4974 IMPLICIT AND MULTIGRID METHOD FOR IMPROVING VOR3D1 CODE 05/30/1996 – 11/30/1997 FY98: \$0 Total: \$37,900 <i>Prin. Invest.:</i> C LIU <i>Tech. Officer:</i> LARC/C H LIU <i>CASE Category:</i> 41 – AERONAUTICAL ENGR | NAG 2 1006 SOUTHERN UNIV & A&M COLLEGE 4982 QFT DESIGN FRAMEWORK FOR ROTORCRAFT CONTROL 08/25/1995 – 08/31/1998 FY98: \$0 Total: \$199,942 <i>Prin. Invest.:</i> L LAWSON <i>Tech. Officer:</i> ARC/M B TISCHLER <i>CASE Category:</i> 41 – AERONAUTICAL ENGR |
| NAG 1 1891 LOUISIANA TECH UNIVERSITY 4975 NUMERICAL SIMULATION AND MODELING FOR 3-D TRANSITIONAL AND TURBULENT FLOW 01/16/1997 – 04/15/1998 FY98: \$0 Total: \$19,998 <i>Prin. Invest.:</i> C LIU <i>Tech. Officer:</i> LARC/C H LIU <i>CASE Category:</i> 41 – AERONAUTICAL ENGR | NAG 2 1015 SOUTHERN UNIV & A&M COLLEGE 4983 LEARNING & GENERALIZATION USING NEURAL NETWORKS WITH APPLICATIONS TO ON-LINE F-16 REFERENCE MODEL 09/22/1995 – 07/31/1999 FY98: \$74,997 Total: \$299,988 <i>Prin. Invest.:</i> S K TRIVEDI, J P MCGUIRK <i>Tech. Officer:</i> ARC/A J HATCH, ARC/S P COLOMBANO <i>CASE Category:</i> 43 – CHEMICAL ENGR |

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| NAG 2 1159 SOUTHERN UNIV & A&M COLLEGE 4984 AIR TRAFFIC CONTROL USING NEURAL NETWORKS 08/25/1997 - 07/31/1999 FY98: \$0 Total: \$102,000 Prin. Invest.: S K TRIVEDI Tech. Officer: ARC/G S LEE CASE Category: 22 - COMPUTER SCIENCE | NAG 5 7157 SOUTHERN UNIV & A&M COLLEGE 4992 DEVELOPMENT OF BALLOON-BORNE X-RAY/GAMMA DETECTORS FOR STUDIES OF HIGH ENERGY ASTROPHYSICAL SOURCE 03/11/1998 - 02/28/1999 FY98: \$99,220 Total: \$99,220 Prin. Invest.: J E TACY Tech. Officer: GSFC/J TUELLER CASE Category: 13 - PHYSICS |
| NAG 2 1162 SOUTHERN UNIV & A&M COLLEGE 4985 A PROPOSAL TO DEVELOP INTERACTIVE CLASSIFICATION TECHNOLOGY 09/17/1997 - 09/14/1998 FY98: \$20,055 Total: \$96,028 Prin. Invest.: C DEBASSONET Tech. Officer: ARC/R R DAPICE CASE Category: 22 - COMPUTER SCIENCE | NAG 8 1495 SOUTHERN UNIV & A&M COLLEGE 4993 RELATIONSHIP BETWEEN STRUCTURE AND MAGNETIC AND ELECTRON TRANSPORT PROPERTIES IN R1-AXMN03 06/01/1998 - 05/31/2001 FY98: \$97,298 Total: \$97,298 Prin. Invest.: H L LAWRENCE Tech. Officer: MSFC/D SCHMIDT CASE Category: 13 - PHYSICS |
| NAG 3 1662 SOUTHERN UNIV & A&M COLLEGE 4986 INTELLIGENT KNOWLEDGE ACQUISITION FOR INTERACTIVE SOFTWARE FOR ROCKET ENGINE SYSTEM DESIGN 09/16/1994 - 12/31/1997 FY98: \$0 Total: \$275,001 Prin. Invest.: D MOREMAN Tech. Officer: LERC/D F NOGA CASE Category: 41 - AERONAUTICAL ENGR | NAG 8 1536 SOUTHERN UNIV & A&M COLLEGE 4994 MODELING AND ANALYSIS OF HEAT-ACTIVATED THERMAL COUPLES 06/08/1998 - 06/10/2001 FY98: \$98,934 Total: \$98,934 Prin. Invest.: M A STUNNLEFIELD Tech. Officer: MSFC/G GORDON CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAG 3 1824 SOUTHERN UNIV & A&M COLLEGE 4987 INLET DISTRIBUTION AND SURGE/STALL INSTABILITY IN AXIAL COMPRESSION SYSTEMS 03/27/1996 - 07/31/1997 FY98: \$0 Total: \$54,081 Prin. Invest.: G S GREWAL, G S HAPRAWANA, O D NWOKAH Tech. Officer: LERC/A K OWEN CASE Category: 41 - AERONAUTICAL ENGR | NAGW 3882 SOUTHERN UNIV & A&M COLLEGE 4995 NAGW3882/B SOUTHERN UNIV. 36-MONTH MULTI YR AWARD 03/15/1994 - 09/16/1998 FY98: \$0 Total: \$2,762,784 Prin. Invest.: V T MONTGOMERY, S S CHEHL Tech. Officer: HQ 1 M BLANKSON CASE Category: 41 - AERONAUTICAL ENGR |
| NAG 3 1825 SOUTHERN UNIV & A&M COLLEGE 4988 DEVELOPMENT OF INTEGRATED METHODOLOGY FOR ENGINE COMPONENT DESIGN AND DESIGN OPTIMIZATION 04/17/1996 - 05/31/1999 FY98: \$80,000 Total: \$293,000 Prin. Invest.: R A MIRSHAMS, B Q LI Tech. Officer: LERC/L BERKE CASE Category: 41 - AERONAUTICAL ENGR | NAGW 4013 SOUTHERN UNIV & A&M COLLEGE 4996 SPACE COMMUNICATION & INFO RESEARCH: IMPROVED SPACE LINK PERFORMANCE VIA CONCATENATED FORWARD-ERROR 06/10/1994 - 12/31/1997 FY98: \$0 Total: \$500,000 Prin. Invest.: E W HINDS Tech. Officer: HQ/4 L THEISS CASE Category: 22 - COMPUTER SCIENCE |
| NAG 3 2076 SOUTHERN UNIV & A&M COLLEGE 4989 KNOWLEDGE PRESERVATION FOR DESIGN OF ROCKET SYSTEMS 09/26/1997 - 03/31/1999 FY98: \$0 Total: \$100,000 Prin. Invest.: D MOREMAN, J DYER Tech. Officer: LERC/D F NOGA CASE Category: 22 - COMPUTER SCIENCE | NAGW 4481 SOUTHERN UNIV & A&M COLLEGE 4997 LIQUID PHASE PIEZOELECTRIC IMMUNOSENSORS 05/30/1995 - 03/01/1998 FY98: \$0 Total: \$190,954 Prin. Invest.: A A SULEIMAN Tech. Officer: HQ/1 C FOGLEMAN CASE Category: 59 - LIFE SCIENCE, OTHER |
| NAG 5 3660 SOUTHERN UNIV & A&M COLLEGE 4990 EFFECTS OF AEROSOLS AND CLOUDS INTERACTION ON UV, PAR, AND CROP YIELDS 11/15/1996 - 11/14/1999 FY98: \$100,000 Total: \$199,977 Prin. Invest.: C H YANG Tech. Officer: GSFC/A DOUGLAS CASE Category: 13 - PHYSICS | NAG10 171 SOUTHERN UNIV & A&M COLLEGE 4998 DEVELOPMENT & UTILIZATION OF A MULTIPURPOSE ATMOSPHERIC CORROSION SENSOR 06/15/1995 - 10/15/1998 FY98: \$0 Total: \$314,985 Prin. Invest.: R DIMAN Tech. Officer: KSC/R LEE, KSC/K POIMBOEUF CASE Category: 51 - ENVIRONMENTAL BIOLOGY |
| NAG 5 5066 SOUTHERN UNIV & A&M COLLEGE 4991 THE ADVANCED THIN IONIZATION CALORIMETER (ATIC) BALLOON EXPERIMENT 06/17/1996 - 04/01/1999 FY98: \$170,000 Total: \$365,000 Prin. Invest.: A R FAZELY Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT CASE Category: 13 - PHYSICS | NAG10 182 SOUTHERN UNIV & A&M COLLEGE 4999 FRAC TOGRAPHIC STUDIES & ANALYSES IN DATA BASE DOCUMENTATION & DEVELOPMENT 01/11/1996 - 02/10/1999 FY98: \$75,000 Total: \$200,000 Prin. Invest.: R M DVWAN Tech. Officer: KSC/H LEE CASE Category: 31 - ATMOSPHERIC SCIENCE |

NAG10 210 SOUTHERN UNIV & A&M COLLEGE **5000**
RESEARCH & EDUCATION EXPERIENCES FOR MINORITY UNDERGRADUATES IN COMPOSITE MATERIAL
 09/01/1997 - 01/01/1999 FY98: \$50,000 Total: \$250,000
Prin. Invest.: S S CHEHL
Tech. Officer: KSC/S MCDANIELS
CASE Category: 49 - ENGINEERING, OTHER

NAG13 98003 SOUTHERN UNIV & A&M COLLEGE **5001**
NOISE REMOVAL DECONVOLUTION AND VIBRATION RELAXATION STUDIES TO ENHANCE PLUME DIAGNOSTIC TECH.
 03/11/1998 - 05/14/1999 FY98: \$99,924 Total: \$99,924
Prin. Invest.: A AMINI
Tech. Officer: SSC/B B ST. CYR
CASE Category: 49 - ENGINEERING, OTHER

NAG13 98013 SOUTHERN UNIV & A&M COLLEGE **5002**
MATHEMATICS AND SCIENCE ENRICHMENT ACTIVITIES FOR MIDDLE AND HIGH SCHOOL STUDENTS
 07/15/1998 - 07/14/2001 FY98: \$100,000 Total: \$100,000
Prin. Invest.: M SUBBLEFIELD
Tech. Officer: SSC/A JOYCE
CASE Category: 21 - MATHEMATICS

NCC 8 138 SOUTHERN UNIV & A&M COLLEGE **5003**
RESEARCH "COMPOSITE TRUSS DESIGN OPTIMIZATION"
 07/15/1997 - 07/14/1999 FY98: \$164,333 Total: \$331,966
Prin. Invest.: C WANG
Tech. Officer: MSFC/D FORD
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 8 156 SOUTHERN UNIV & A&M COLLEGE **5004**
FOR RESEARCH ENTITLED: "STRUCTURAL MATERIALS FAILURE ANALYSIS DATABASE"
 09/28/1998 - 09/27/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: J DYER
Tech. Officer: MSFC/G JERMAN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 5 90015 SOUTHERN UNIV & A&M COLLEGE **5005**
UNDERGRADUATE SCHOLAR AWARDS FOR RESEARCH (USAR)
 12/16/1996 - 12/31/1998 FY98: \$0 Total: \$120,000
Prin. Invest.: D BAGAYOKO
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 13 - PHYSICS

NGT13 52709 SOUTHERN UNIV & A&M COLLEGE **5006**
1997 NASA/AASEE SUMMER FACULTY FELLOWSHIP PROGRAM AT STENNIS
 03/21/1997 - 03/20/1998 FY98: -\$3,910 Total: \$226,090
Prin. Invest.: E HILDRETH
Tech. Officer: SSC/A T JOYCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 52 SOUTHERN UNIVERSITY - NEW ORLEANS **5007**
NASA/SUNO PARTNERSHIP FOR EXCELLENCE IN MATH & SCIENCE EDUCATION
 06/30/1997 - 06/29/1999 FY98: \$112,000 Total: \$306,105
Prin. Invest.: P HEATH, R PERRY
Tech. Officer: JSC/N SULLIVAN
CASE Category: 21 - MATHEMATICS

NAG 2 999 TULANE UNIVERSITY **5008**
EFFECT OF MICROGRAVITY ON AFFERENT INNEVATION
 08/16/1995 - 03/31/1998 FY98: \$0 Total: \$191,575
Prin. Invest.: C D FERMIN
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1362 TULANE UNIVERSITY **5009**
FOR RESEARCH—PRODUCTION OF 125 DIOH D3 BY RENAL EPITHELIAL CELLS IN SIMULATED MICROGRAVITY CULTURE
 06/18/1997 - 11/30/2000 FY98: \$150,000 Total: \$266,000
Prin. Invest.: T HAMMOND
Tech. Officer: JSC/S R GONDA
CASE Category: 56 - MEDICL

NAG 9 811 TULANE UNIVERSITY **5010**
DIFFERENTIATION OF NORMAL HUMAN RENAL EPITHELIAL C CELLS IN MICROGRAVITY
 03/08/1996 - 09/17/1999 FY98: \$194,000 Total: \$766,000
Prin. Invest.: D HAMMOND
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 826 TULANE UNIVERSITY **5011**
CELL CULTIVATION
 08/09/1995 - 08/15/1999 FY98: \$100,000 Total: \$424,000
Prin. Invest.: K O'CONNER
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5011 TULANE UNIVERSITY **5012**
CONSTRUCTION OF A SPECIALIZED CLONING STRAIN OF E COLI FOR THE NITRATE REDUCTASE GENES OF HALOFERAX
 11/24/1993 - 11/30/1998 FY98: \$0 Total: \$29,700
Prin. Invest.: E J JOHNSON
Tech. Officer: ARC/A POHORILLE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 30262 TULANE UNIVERSITY **5013**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/21/1994 - 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: R G WATTS
Tech. Officer: HQ/J S THEON, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT13 52717 TULANE UNIVERSITY **5014**
EFFECTS OF ULTRAVIOLET RADIATION ON THE COMPOSITION AND MICROBIAL UTILIZATION
 07/13/1998 - 07/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: E ENGELHAUPT
Tech. Officer: SSC/A JOYCE
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 3 1658 UNIVERSITY OF NEW ORLEANS **5015**
CRITICAL PHENOMENON, ELECTRODYNAMICS, AND GEOPHYSICAL FLOWS
 10/19/1994 - 06/30/1997 FY98: -\$1,535 Total: \$138,465
Prin. Invest.: J HEGSETH
Tech. Officer: LERC/H K NAHRA, LERC/A WILKINSON
CASE Category: 13 - PHYSICS

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| NAG 3 1906 UNIVERSITY OF NEW ORLEANS 5016 GROWTH AND MORPHOLOGY OF PHASE SEPARATING SUPERCRITICAL FLUIDS 06/10/1996 – 06/09/2000 FY98: \$215,000 Total: \$347,998 Prin. Invest.: J P DROSKE Tech. Officer: LERC/W B ALSTON CASE Category: 12 – CHEMISTRY | NGT13 52719 UNIVERSITY OF NEW ORLEANS 5024 THERMAL AND MECHANICAL ANALYSIS OF HYDROGEN TRANSFER VALVES 07/13/1998 – 07/31/1999 FY98: \$22,000 Total: \$22,000 Prin. Invest.: Y TRAYHAM Tech. Officer: SSC/A JOYCE CASE Category: 41 – AERONAUTICAL ENGR |
| NAG 3 1915 UNIVERSITY OF NEW ORLEANS 5017 A GEOPHYSICAL FLOW EXPERIMENT IN A COMPRESSIBLE CRITICAL FLUID 07/16/1996 – 04/16/1999 FY98: \$0 Total: \$140,000 Prin. Invest.: J HEGSETH Tech. Officer: LERC/R A WILKINSON CASE Category: 13 – PHYSICS | NAG 5 2842 UNIVERSITY OF SOUTHWESTERN LOUISIANA 5025 INTELLIGENT INFORMATION FUSION AND MANAGEMENT PROTOTYPE APPLICABLE TO EOSDIS 12/14/1994 – 12/31/1998 FY98: \$0 Total: \$155,000 Prin. Invest.: N F SINOU Tech. Officer: GSFC/W CAMPBELL CASE Category: 11 – ASTRONOMY |
| NAG 5 6165 UNIVERSITY OF NEW ORLEANS 5018 PLANET EARTH WORKSHOPS FOR TEACHERS OF PHYSICAL SCIENCE 08/19/1997 – 07/31/1998 FY98: \$0 Total: \$10,700 Prin. Invest.: J J SULLIVAN Tech. Officer: GSFC/N KHAZENIE CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NAG 5 7127 UNIVERSITY OF SOUTHWESTERN LOUISIANA 5026 REACTIVE INFORMATION FUSION APPLICABLE TO NASA'S REGIONAL APPLICATION CENTER PROJECT 03/02/1998 – 02/28/1999 FY98: \$75,000 Total: \$75,000 Prin. Invest.: D P SINOU Prin. Invest.: NONE Tech. Officer: GSFC/W CAMPBELL CASE Category: 22 – COMPUTER SCIENCE |
| NAG 5 6578 UNIVERSITY OF NEW ORLEANS 5019 IMAGE ANALYSIS ENHANCEMENT FOR ADVANCED ENVIRONMENTAL AND LAND USE STUDY AT THE UNIVERSITY OF NEW ORLEANS 01/15/1997 – 10/31/1998 FY98: \$98,162 Total: \$98,162 Prin. Invest.: M JOHNSON Tech. Officer: GSFC/M WEI CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NAG 9 928 UNIVERSITY OF SOUTHWESTERN LOUISIANA 5027 ANALYSIS & OPTIMIZATION LOW-GRAVITY TOW-PHASE HEAT REJECTION DEVICE PLANTARY THERMAL ENERGY MGMT 02/13/1997 – 02/7/1998 FY98: -\$1,368 Total: \$15,395 Prin. Invest.: W E SIMON, T L CHAMBERS, F M YOUNG Tech. Officer: JSC/C D CROSS CASE Category: 42 – ASTRONAUTICAL ENGR |
| NAG 8 1116 UNIVERSITY OF NEW ORLEANS 5020 JOVE 01/10/1995 – 05/31/1998 FY98: \$0 Total: \$123,964 Prin. Invest.: J J HEGSETH, M L JOHNSON, J J HOWARD Tech. Officer: MSFC/F SIX CASE Category: 99 – MULTI INTERDISCIPL, OTHER | NAG10 190 UNIVERSITY OF SOUTHWESTERN LOUISIANA 5028 RESPONSE SYSTEM OF PLANTS 03/25/1996 – 09/4/1998 FY98: \$98,739 Total: \$226,858 Prin. Invest.: K H HASENSTEIN Tech. Officer: KSC/W M KNOTT CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR) |
| NGT13 52706 UNIVERSITY OF NEW ORLEANS 5021 THE APPLICATION OF THE NONCLASSICAL DYNAMICAL THEORY OF THERMO-ELASTICITY OF THE COOLING TANK 05/23/1996 – 08/01/1999 FY98: \$22,000 Total: \$66,000 Prin. Invest.: D PURI Tech. Officer: SSC/D JOYCE CASE Category: 41 – AERONAUTICAL ENGR | NAG 5 3512 XAVIER UNIVERSITY – LOUISIANA 5029 MASTAP AWARE PROJECT TEACH 01/24/1997 – 06/30/1998 FY98: \$0 Total: \$356,000 Prin. Invest.: E E DUOK Tech. Officer: GSFC/M MATEU CASE Category: 2 – CHEMISTRY |
| NGT13 52711 UNIVERSITY OF NEW ORLEANS 5022 GRADUATE STUDENT PROGRAM-ANALYSIS OF HYDROGEN FLARE STACKS 07/22/1997 – 07/21/1998 FY98: \$0 Total: \$22,000 Prin. Invest.: E RUSSO Tech. Officer: JSC/A JOYCE CASE Category: 41 – AERONAUTICAL ENGR | NAGW 4628 XAVIER UNIVERSITY – LOUISIANA 5030 PROJECT TEACH 07/24/1995 – 06/30/1998 FY98: \$0 Total: \$170,230 Prin. Invest.: E E DUOK Tech. Officer: HQ/11 RUSSELL CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NGT13 52714 UNIVERSITY OF NEW ORLEANS 5023 DIONNEI-MELISSA DEBOSE/USING SINDA/FLUINT TO DEVELOP COMPUTER MODEL APPLICATIONS FOR SSC 10/09/1997 – 07/31/1999 FY98: \$33,000 Total: \$33,000 Prin. Invest.: E RUSSO Tech. Officer: SSC/A JOYCE CASE Category: 22 – COMPUTER SCIENCE | NAG13 53 XAVIER UNIVERSITY – LOUISIANA 5031 PROJECT KAIZEH SAME 06/19/1997 – 06/15/1999 FY98: \$112,000 Total: \$299,980 Prin. Invest.: I HAN/SA Tech. Officer: SSC/N SULLIVAN CASE Category: 99 – MULTI INTERDISCIPL, OTHER |

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NAG13 98006 XAVIER UNIVERSITY - LOUISIANA **5032**
SEEING THE EARTH: USING REMOTE SENSING TECHNOLOGIES TO STIR
IMAGINATION OF STUDENTS
 04/20/1998 - 04/19/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: S O'CONNOR
Tech. Officer: JSC/A JOYCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 90004 XAVIER UNIVERSITY - LOUISIANA **5033**
TRAINING GRANT
 01/01/1987 - 04/30/1997 FY98: \$0 Total: \$1,195,737
Prin. Invest.: G W BAKER
Tech. Officer: HQ/L WARREN, HQ/M MORGOLIS
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 90084 XAVIER UNIVERSITY - LOUISIANA **5034**
SOAR 2 SUMMER BRIDGE PROGRAM
 09/09/1997 - 04/30/1999 FY98: \$152,165 Total: \$287,673
Prin. Invest.: G BAKER
Tech. Officer: GSFC/L RANDOLPH
CASE Category: 49 - ENGINEERING, OTHER

MAINE

NAG 5 6002 UNIVERSITY OF MAINE - ORONO **5035**
SOILS, WATER, PEOPLE, AND PIXELS: A STUDY OF NANG
 09/11/1997 - 01/14/2000 FY98: \$213,750 Total: \$498,743
Prin. Invest.: R RINDFUSS
Tech. Officer: HQ/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6041 UNIVERSITY OF MAINE - ORONO **5036**
TIME-SERIES FOREST CHANGE, LAND-COVER/LAND-USE CON ECO-
NOMIC DRIVING FORCES IN THE NORTHERN PETEN DIS
 07/23/1997 - 07/31/1999 FY98: \$65,250 Total: \$210,250
Prin. Invest.: S SADER
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6558 UNIVERSITY OF MAINE - ORONO **5037**
BIOLOGICAL-PHYSICAL COUPLING IN THE GULF OF MAINE: SATELLITE
AND MODEL SSTUDIES IN PHYTOPLANKTON VA
 10/27/1997 - 10/31/1999 FY98: \$231,514 Total: \$231,514
Prin. Invest.: A THOMAS
Tech. Officer: GSFC/J YODER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6604 UNIVERSITY OF MAINE - ORONO **5038**
PHYTOPLANKTON VARIABILITY IN EASTERN BOUNDARY CURR ENTS:
CONNECTIONS TO PHYSICAL FORCING
 12/11/1997 - 11/30/1998 FY98: \$122,986 Total: \$122,986
Prin. Invest.: A THOMAS
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6672 UNIVERSITY OF MAINE - ORONO **5039**
UNIVERSITY OF MAINE: CENTER OF EXCELLENCE IN REMOTE SENSING
APPLICATIONS
 12/16/1997 - 09/30/1998 FY98: \$247,868 Total: \$247,868
Prin. Invest.: S A SADER
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3746 UNIVERSITY OF MAINE - ORONO **5040**
ROOT-ASSOCIATED METHANE OXIDATION AND METHANOGENESIS IS: KEY
DETERMINANTS OF METHANE EMISSIONS
 09/16/1993 - 07/31/1997 FY98: \$0 Total: \$272,445
Prin. Invest.: G M KING
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4075 UNIVERSITY OF MAINE - ORONO **5041**
CONSTRUCTION OF A GLOBAL OCEAN WAVE CLIMATOLOGICAL ATLAS
BASED ON GEOSAT DATA"
 07/14/1994 - 04/18/1998 FY98: \$0 Total: \$116,949
Prin. Invest.: V PANCHANG
Tech. Officer: HQ/J S THEON
CASE Category: 33 - OCEANOGRAPHY

NAGW 4410 UNIVERSITY OF MAINE - ORONO **5042**
SOLID STATE SENSOR FOR AERONAUTICAL AND SPACE APPLICATION
 04/14/1995 - 03/01/1998 FY98: \$0 Total: \$75,000
Prin. Invest.: D J DWYER
Tech. Officer: HQ/A S MCGEE, HQ/E T SCHWARTZ
CASE Category: 49 - ENGINEERING, OTHER

NAG13 98008 UNIVERSITY OF MAINE - ORONO **5043**
FOREST MONITORING AND MULTISENSOR RESEARCH IN MAINE'S
INDUSTRIAL FOREST
 04/30/1998 - 04/29/2001 FY98: \$166,666 Total: \$166,666
Prin. Invest.: S SADER
Tech. Officer: JSC/B DAVIS
CASE Category: 55 - AGRICULTURE

NGT 9 7 UNIVERSITY OF MAINE - ORONO **5044**
SUMMER FACULTY FELLOWSHIP
 09/23/1996 - 05/31/1998 FY98: \$0 Total: \$14,952
Prin. Invest.: V CACCESI
Tech. Officer: JSC/E PRITCHARD
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 8 1219 UNIVERSITY OF NEW ENGLAND **5045**
JOVE
 11/30/1995 - 03/31/1999 FY98: \$20,000 Total: \$81,000
Prin. Invest.: S I ZEEMAN
Tech. Officer: MSFC/D SIX
CASE Category: 33 - OCEANOGRAPHY

MARYLAND

NAG 5 2277 BOWIE STATE UNIVERSITY **5046**
RESEARCH AND DEVELOPMENT FOR AN INFORMATION ECOLOGY
 05/26/1993 - 09/30/1997 FY98: \$0 Total: \$306,994
Prin. Invest.: S SRIVASTAVA, N WAKIM
Tech. Officer: GSFC/W F TRUSZKOWSKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2829 BOWIE STATE UNIVERSITY **5047**
MODEL-BASED VQ FOR MULTISPECTRAL EARTH IMAGE DATA COMPRES-
SION
 12/14/1994 - 12/31/1998 FY98: \$19,296 Total: \$154,231
Prin. Invest.: M MAREBOYANA
Tech. Officer: GSFC/W CAMPBELL
CASE Category: 11 - ASTRONOMY

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| NAG 5 2941 BOWIE STATE UNIVERSITY 5048 SUMMER INSTITUTE IN ENGINEERING & COMPUTER APPLICATIONS (SIECA) PROGRAM 05/22/1995 – 05/31/1998 FY98: \$0 Total: \$534,963 <i>Prin. Invest.:</i> J LANGDON <i>Tech. Officer:</i> GSFC/D MENCHEN <i>CASE Category:</i> 49 – ENGINEERING, OTHER | NCC 5 232 BOWIE STATE UNIVERSITY 5056 MODEL INSTITUTIONS FOR EXCELLENCE – PERIOD OF PERF 09/22/1997 – 09/30/1999 FY98: \$2,075,481 Total: \$3,083,050 <i>Prin. Invest.:</i> N WAKIM <i>Tech. Officer:</i> GSFC/L RANDOLPH <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER |
| NAG 5 3546 BOWIE STATE UNIVERSITY 5049 PROJECT SPACE (STUDENT PROGRAM FOR ACADEMIC AND CULTURAL ENRICHMENT) 12/05/1996 – 08/31/1997 FY98: \$0 Total: \$106,000 <i>Prin. Invest.:</i> J LANGDON <i>Tech. Officer:</i> GSFC/D MENCHAN <i>CASE Category:</i> 11 – ASTRONOMY | NCC 5 235 BOWIE STATE UNIVERSITY 5057 AN AGENT-BASED INFORMATION PROCESSING SYSTEM CO-OPERATION WITH BOWIE S 11/07/1997 – 09/14/1998 FY98: \$50,000 Total: \$50,000 <i>Prin. Invest.:</i> S SRIVASTAVA <i>Tech. Officer:</i> GSFC/W TRUSZKOWSKI <i>CASE Category:</i> 22 – COMPUTER SCIENCE |
| NAG 5 6476 BOWIE STATE UNIVERSITY 5050 ASSESSING THE IMPACT OF EXPANDING URBAN LAND USE ON AGRICULTURAL PRODUCTIVITY USING REMOTE S 12/08/1997 – 12/14/1998 FY98: \$266,659 Total: \$266,659 <i>Prin. Invest.:</i> W LAWRENCE <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> GSFC/M IMHOFF <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER | NCC 5 246 BOWIE STATE UNIVERSITY 5058 CITY LIGHTS DATA FOR THE MIDDLE EAST; DATA REGISTRATION AND ANALYSIS 10/22/1997 – 07/11/1998 FY98: \$9,638 Total: \$9,638 <i>Prin. Invest.:</i> W LAWRENCE <i>Tech. Officer:</i> GSFC/M IMHOFF <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER |
| NAG 5 7225 BOWIE STATE UNIVERSITY 5051 SIECA IS A PROGRAM FOR COLLEGE INTERNS. 04/09/1998 – 04/14/1999 FY98: \$181,038 Total: \$181,038 <i>Prin. Invest.:</i> J LANGDON <i>Tech. Officer:</i> GSFC/D MENCHAN <i>CASE Category:</i> 22 – COMPUTER SCIENCE | NCCW 79 BOWIE STATE UNIVERSITY 5059 MODEL INSTITUTIONS FOR EXCELLENCE PROGRAM 06/30/1995 – 08/30/1997 FY98: \$0 Total: \$3,173,194 <i>Prin. Invest.:</i> N WAKIM <i>Tech. Officer:</i> HQ/D K RUSSELL <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER |
| NAG 5 7658 BOWIE STATE UNIVERSITY 5052 A VIRTUAL DATA VISUALIZATION AND ANALYSIS DISTRIBUTION SYSTEM: CINEMATOGRAPHY OF SCIENCE 09/09/1998 – 08/14/1999 FY98: \$15,000 Total: \$15,000 <i>Prin. Invest.:</i> J M CAVALLIO <i>Tech. Officer:</i> GSFC/J D BENNETT <i>CASE Category:</i> 22 – COMPUTER SCIENCE | NAG 5 2942 CAPITOL COLLEGE 5060 PRE-COLLEGE MINORITY ENGINEERING PROGRAM 05/22/1995 – 05/31/1999 FY98: \$0 Total: \$230,906 <i>Prin. Invest.:</i> D DFESNER <i>Tech. Officer:</i> GSFC/MENCHAN <i>CASE Category:</i> 49 – ENGINEERING, OTHER |
| NAG 5 7669 BOWIE STATE UNIVERSITY 5053 SUPPORT FOR DATA ANALYSIS, PRESENTATION, FIELD & MEETING TRAVEL NASA/DOD/LEGACY CENTRAL AMERICA DEPL 09/28/1998 – 09/30/2000 FY98: \$137,000 Total: \$137,000 <i>Prin. Invest.:</i> W LAWRENCE <i>Tech. Officer:</i> GSFC/D L WILLIAMS <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER | NAG 5 7342 CAPITOL COLLEGE 5061 TO RUN THE PRE-ENGINEERING PROGRAM 04/27/1998 – 04/31/1999 FY98: \$71,800 Total: \$71,800 <i>Prin. Invest.:</i> J JAFREL <i>Tech. Officer:</i> GSFC/D MENCHAN <i>CASE Category:</i> 45 – ELECTRICAL ENGR |
| NCC 5 145 BOWIE STATE UNIVERSITY 5054 AUTOMATION OF SCHEDULING OF ORBIT DETERMINATION PROGRAMS 07/30/1996 – 12/31/1998 FY98: \$158,271 Total: \$308,838 <i>Prin. Invest.:</i> P C CHI <i>Tech. Officer:</i> GSFC/D A WEIDOW, GSFC/J R SPARMO <i>CASE Category:</i> 11 – ASTRONOMY | NAG 5 6249 CTR FOR ENVIRON & ESTUARINE STUDIES U OF MD. 5062 TIMES-SCALES OF LAND-USE CHANGE AND EXPORT OF NUTRIENT BASIN TO THE COASTAL ZONE 08/19/1997 – 01/31/2000 FY98: \$57,500 Total: \$225,000 <i>Prin. Invest.:</i> P R FISHER <i>Tech. Officer:</i> GSFC/A C JANETOS <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER |
| NCC 5 201 BOWIE STATE UNIVERSITY 5055 BOWIE STATE'S SATELLITE OPERATIONS AND CONTROL CENTER 06/27/1997 – 05/31/1999 FY98: \$100,000 Total: \$300,000 <i>Prin. Invest.:</i> N T WAKIM <i>Tech. Officer:</i> GSFC/L GATTO <i>CASE Category:</i> 49 – ENGINEERING, OTHER | NAG 5 6286 CTR FOR ENVIRON & ESTUARINE STUDIES U OF MD. 5063 REMOTE OBSERVATIONS AND MODELING OF PHYTOPLANKTON 09/10/1997 – 08/31/1999 FY98: \$163,969 Total: \$321,351 <i>Prin. Invest.:</i> L HARDING <i>Tech. Officer:</i> GSFC/J HARDING <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER |

NAG 5 6387 CTR FOR ENVIRON & ESTUARINE STUDIES U OF MD. **5064**
**MODELLING N2 AND CO2 FIXATION BY THE OCEANIC DIAZO TROPHIC CYA-
 NOBACTERIUMTRICHODESMIUM**
 10/18/1997 - 09/30/1998 FY98: \$92,584 Total: \$92,584
 Prin. Invest.: D G CAPONE
 Tech. Officer: GSFC/G ASRAR
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7455 CTR FOR ENVIRON & ESTUARINE STUDIES U OF MD. **5065**
**INTEGRATING REMOTE AND IN SITU SENSING TO DETECT A ND PREDICT
 CHANGE IN THE COASTAL ZONE**
 07/28/1998 - 07/31/1999 FY98: \$50,696 Total: \$50,696
 Prin. Invest.: T C MALONE, NONE
 Tech. Officer: GSFC/J W CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7602 CTR FOR ENVIRON & ESTUARINE STUDIES U OF MD. **5066**
**REMOTE OBSERVATIONS IN THE CHOPTANK RIVER INDEX SI TE: OCEAN
 COLOR, SALINITY, TEMPERATURE AND C**
 07/21/1998 - 08/31/2001 FY98: \$168,213 Total: \$168,213
 Prin. Invest.: L W HARDING
 Tech. Officer: GSFC/J W CAMPBELL
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3891 CTR FOR ENVIRON & ESTUARINE STUDIES U OF MD. **5067**
**USE OF OCEAN COLOR DATA FROM SEAWIFS TO DETECT SEA SONAL &
 INTERANNUAL VARIABILITY OF PHYTOPLANKTON**
 03/18/1994 - 12/31/1997 FY98: \$0 Total: \$244,328
 Prin. Invest.: L W HARDING, CF D'ELIA
 Tech. Officer: HQ/A C JANETOS, HQ/D E WICKLAND
 CASE Category: 33 - OCEANOGRAPHY

NAGW 3947 CTR FOR ENVIRON & ESTUARINE STUDIES U OF MD. **5068**
 **EVAL. OF REGIONAL & TEMPORAL VARIATION OF PRIMARY PRODUCTIV-
 ITY W/IN CASE II SHELF WATERS - SEAWIFS**
 04/20/1994 - 01/28/1998 FY98: \$0 Total: \$213,336
 Prin. Invest.: T R FISHER, J HARDING
 Tech. Officer: HQ/A C JANETOS, HQ/D E WICKLAND
 CASE Category: 33 - OCEANOGRAPHY

NAS 5 97131 CTR FOR ENVIRON & ESTUARINE STUDIES U OF MD. **5069**
VALIDATION OF OCEAN COLOR
 09/12/1997 - 09/11/1999 FY98: \$25,000 Total: \$280,700
 Prin. Invest.: D G CAPONE
 Tech. Officer: GSFC/C MCCLAIN
 CASE Category: 33 - OCEANOGRAPHY

NCC 5 69 CHARLES COUNTY COMMUNITY COLLEGE **5070**
**LAB INVESTIGATIONS OF FORMATION PROPERTIES & METAMORPHISM OF
 PRE-SOLAR MATERIALS**
 06/01/1994 - 05/31/1999 FY98: \$19,663 Total: \$90,693
 Prin. Invest.: G KRAUSE
 Tech. Officer: GSFC/J NUTH, GSFC/J ALLEN
 CASE Category: 11 - ASTRONOMY

NAG 8 1315 COPPIN STATE COLLEGE **5071**
JOVE RESEARCH STUDY
 01/28/1997 - 08/31/1998 FY98: \$0 Total: \$37,196
 Prin. Invest.: M E OWENS
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 1 1811 JOHNS HOPKINS UNIVERSITY **5072**
NONDESTRUCTIVE DETERMINATION OF BOND STRENGTH
 02/26/1996 - 06/30/1999 FY98: \$50,000 Total: \$112,500
 Prin. Invest.: R E GREEN, JR.
 Tech. Officer: LARC/M J ROBERTS
 CASE Category: 46 - MECHANICAL ENGR

NAG 1 2043 JOHNS HOPKINS UNIVERSITY **5073**
**INFERRING ASPECTS OF TRANSPORT AND MIXING IN THE STRATOSP-
 HEREAND TROPOSPHERE FROM CHEMICAL TRACER**
 04/01/1998 - 03/31/1999 FY98: \$71,000 Total: \$71,000
 Prin. Invest.: D W WAUGH
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1815 JOHNS HOPKINS UNIVERSITY **5074**
**EXPERIMENTAL INVESTIGATION; POOL BOILING HEAT TRAN SFER
 ENHANCEMENT IN THE PRESENCE OF ELECTRIC FIEL**
 03/25/1996 - 03/24/2000 FY98: \$52,649 Total: \$163,719
 Prin. Invest.: D HERMAN Prin. Invest.: NONE
 Tech. Officer: LERC/H K NAHRA, LERC/B MOTIL
 CASE Category: 46 - MECHANICAL ENGR

NAG 3 1923 JOHNS HOPKINS UNIVERSITY **5075**
**MARANGONI EFF ON DROP DEFORM & BREAK UP IN A EXTEN FLOW: THE
 ROLE OF SURFACTANT PHYS CHEMISTRY**
 07/18/1996 - 07/17/2000 FY98: \$39,998 Total: \$174,998
 Prin. Invest.: K J STEBE
 Tech. Officer: LERC/B S SINGH
 CASE Category: 43 - CHEMICAL ENGR

NAG 3 1924 JOHNS HOPKINS UNIVERSITY **5076**
ACOUSTIC BUBBLE REMOVAL FROM BOILING SURFACES
 07/18/1996 - 07/17/2000 FY98: \$50,000 Total: \$182,618
 Prin. Invest.: A PROSPERETTI, H N OGUZ, E H TRINH
 Tech. Officer: LERC/B S SINGH
 CASE Category: 46 - MECHANICAL ENGR

NAG 3 1925 JOHNS HOPKINS UNIVERSITY **5077**
PRODUCTION OF GAS BUBBLES IN REDUCED GRAVITY ENVIR ONMENTS
 07/18/1996 - 07/17/1998 FY98: \$0 Total: \$119,998
 Prin. Invest.: P OGUZ
 Tech. Officer: LERC/H K NAHRA, LERC/B MOTIL
 CASE Category: 46 - MECHANICAL ENGR

NAG 3 1953 JOHNS HOPKINS UNIVERSITY **5078**
**OPTIMIZATION OF ROBUST ROCKET-BASED COMBINED-CYCLE
 VEHICLES FOR SINGEL-STAGE-TO-ORBIT APPLICATIONS**
 08/15/1996 - 07/31/1997 FY98: \$0 Total: \$50,000
 Prin. Invest.: D M VAN WIE, T RICE
 Tech. Officer: LERC/C J TREFRY, LERC/C SNYDER
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1954 JOHNS HOPKINS UNIVERSITY **5079**
SURFACTANT BASED CRITICAL PHENOMENA IN MICROGRAVIT Y
 08/19/1996 - 08/31/2000 FY98: \$38,000 Total: \$136,500
 Prin. Invest.: M E PAULATIS
 Tech. Officer: LERC/B SINGH
 CASE Category: 43 - CHEMICAL ENGR

NAG 3 2118 JOHNS HOPKINS UNIVERSITY **5080**
PRODUCTION AND REMOVAL OF GAS BUBBLES IN MICROGRAVITY
 02/26/1998 – 01/07/2002 FY98: \$60,474 Total: \$60,474
Prin. Invest.: H N OGUZ
Tech. Officer: LERC/H K NAHRA
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 619 JOHNS HOPKINS UNIVERSITY **5081**
ROCKET AND LABORATORY EXPERIMENTS IN AERONOMY AND ASTRONOMY
 03/01/1983 – 12/31/1997 FY98: \$0 Total: \$7,923,000
Prin. Invest.: P D FELDMAN, A F DAVIDSEN, W G FASTIE
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 – PHYSICS

NAG 5 1099 JOHNS HOPKINS UNIVERSITY **5082**
DATA INTERFACES ISTP GROUND BASED DARN PROGRAM
 11/01/1988 – 11/30/1998 FY98: \$0 Total: \$2,248,000
Prin. Invest.: R A GREENWALD
Tech. Officer: GSFC/S A CURTIS, GSFC/M H ACUNA
CASE Category: 13 – PHYSICS

NAG 5 1617 JOHNS HOPKINS UNIVERSITY **5083**
SEARCH FOR CLOSE COMPANIONS OF NEARBY STARS AND TO SIMULATE ST IMAGES IN THE LABORATORY
 05/24/1991 – 10/31/1997 FY98: \$0 Total: \$853,276
Prin. Invest.: W G FASTIE
Tech. Officer: GSFC/S SOBIESKI
CASE Category: 11 – ASTRONOMY

NAG 5 1953 JOHNS HOPKINS UNIVERSITY **5084**
ROSAT IMAGING OF NGC 7793
 03/26/1992 – 03/31/1997 FY98: \$0 Total: \$35,000
Prin. Invest.: W P BLAIR
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 1991 JOHNS HOPKINS UNIVERSITY **5085**
X-RAY OBSERVATIONS OF A WIND FROM A DWARF GALAXY
 06/05/1992 – 12/14/1997 FY98: \$0 Total: \$88,108
Prin. Invest.: T M HECKMAN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 2039 JOHNS HOPKINS UNIVERSITY **5086**
RADIATIVE AND CONVECTIVE PROCESSES
 07/17/1992 – 10/31/1998 FY98: \$110,000 Total: \$838,174
Prin. Invest.: A ARKING
Tech. Officer: GSFC/K M LAU
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2232 JOHNS HOPKINS UNIVERSITY **5087**
RECEIVER DESIGN, PERFORMANCE ANALYSIS, AND EVALUATION FOR SPACE-BORNE LASER ALTIMETERS AND . . .
 04/08/1993 – 04/14/1999 FY98: \$63,000 Total: \$799,807
Prin. Invest.: M DAVIDSON, X SUN
Tech. Officer: GSFC/P MILLAR
CASE Category: 45 – ELECTRICAL ENGR

NAG 5 2398 JOHNS HOPKINS UNIVERSITY **5088**
VOYAGER OBSERVATIONS OF THE DIFFUSE FUV RADIATION FIELD
 10/22/1993 – 10/31/1998 FY98: \$0 Total: \$140,400
Prin. Invest.: J N MURTHY
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 2548 JOHNS HOPKINS UNIVERSITY **5089**
THE MOST LUMINOUS OBJECT IN THE UNIVERSE: PROTOGALAXY OR SHROUDED QUASAR
 03/03/1994 – 11/30/1997 FY98: -\$16,748 Total: \$43,483
Prin. Invest.: T M HECKMAN
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2622 JOHNS HOPKINS UNIVERSITY **5090**
EUVE OBSERVATIONS OF THE JUPITER SYSTEM
 06/28/1994 – 07/31/1997 FY98: -\$24,398 Total: \$57,782
Prin. Invest.: D T HALL
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 2728 JOHNS HOPKINS UNIVERSITY **5091**
STAR FORMING DWARF GALAXIES AND THE X-RAY BACKGROUND
 09/21/1991 – 05/14/1999 FY98: \$0 Total: \$59,367
Prin. Invest.: R G RIFFITHS
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2935 JOHNS HOPKINS UNIVERSITY **5092**
SIMULTANEOUS X-RAY AND FAR ULTRAVIOLET SPECTRA OF AGN WITH ASCA AND HUT
 05/10/1995 – 11/4/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: G K HISS
Tech. Officer: GSFC/N WHITE
CASE Category: 12 – CHEMISTRY

NAG 5 3187 JOHNS HOPKINS UNIVERSITY **5093**
INVESTIGATING MAGNETOSPHERIC DYNAMICS WITH THE POLAR SATELLITE UV AND VISIBLE IMAGERS
 03/26/1996 – 09/30/1998 FY98: \$0 Total: \$1,000,000
Prin. Invest.: C MILLING
Tech. Officer: GSFC/R A HOFFMAN
CASE Category: 13 – PHYSICS

NAG 5 3251 JOHNS HOPKINS UNIVERSITY **5094**
HUBBLE: HOPKINS ULTRAVIOLET BACKGROUND EXPLORER
 06/03/1996 – 12/11/1998 FY98: \$0 Total: \$400,000
Prin. Invest.: D C HENRY
Tech. Officer: GSFC/M D DAVIS
CASE Category: 1 – ASTRONOMY

NAG 5 3255 JOHNS HOPKINS UNIVERSITY **5095**
THE STRUCTURE OF ACTIVE GALACTIC NUCLEI
 06/06/1996 – 09/30/1998 FY98: \$0 Total: \$152,700
Prin. Invest.: G A KRIS
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3316 JOHNS HOPKINS UNIVERSITY **5096**
JHU PARTICIPATION IN GO AND GTO PROGRAMS OF THE IN FRARED SPACE OBSERVATORY
 07/31/1996 – 08/14/1998 FY98: \$31,000 Total: \$93,400
Prin. Invest.: D A NEUFELD
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3331 JOHNS HOPKINS UNIVERSITY **5097**
VARIABILITY ANALYSIS AND THE STRUCTURE OF ACTIVE GALACTIC NUCLEI
 08/13/1996 – 08/14/1997 FY98: \$0 Total: \$155,863
Prin. Invest.: J H KROLLK
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3375 JOHNS HOPKINS UNIVERSITY **5098**
SPACE OBSERVATIONS OF STARBURST GALAXIES
 08/28/1996 – 08/31/1997 FY98: \$0 Total: \$150,072
Prin. Invest.: T HECKMEN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3380 JOHNS HOPKINS UNIVERSITY **5099**
INVESTIGATING THE X-RAY REPROCESSOR IN MCG-5-23-16
 08/30/1996 – 02/28/1998 FY98: \$0 Total: \$15,000
Prin. Invest.: K WEAVER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3419 JOHNS HOPKINS UNIVERSITY **5100**
STATISTICAL CROSS-CORRELATION STUDY OF THE COSMIC X-RAY BACKGROUND IN OPTICAL DEEP MULTICOLOR PHOTOM
 09/14/1996 – 03/14/1998 FY98: \$0 Total: \$12,500
Prin. Invest.: A SZALAY
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3448 JOHNS HOPKINS UNIVERSITY **5101**
FAR ULTRAVIOLET SPECTROSCOPIC EXPLORER (FUSE) OUTR EACH INITIATIVE.
 10/04/1996 – 10/14/1998 FY98: \$25,000 Total: \$35,000
Prin. Invest.: D MOOS, D HOLMES
Tech. Officer: GSFC/D R Mengers, GSFC/O FINGUEROA
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 3452 JOHNS HOPKINS UNIVERSITY **5102**
TOWARD THE DEVELOPMENT OF GALLIUM NITRIDE PHOTOVOLTAIC DETECTORS
 10/15/1996 – 01/31/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: D K WICKENDAN, T J KISTENMACHER
Tech. Officer: GSFC/D B MOTT, GSFC/P K SHU
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 3485 JOHNS HOPKINS UNIVERSITY **5103**
DIFFUSE IONIZED GAS IN GALACTIC ENVIRONMENTS
 10/31/1996 – 10/31/1998 FY98: \$100,300 Total: \$209,600
Prin. Invest.: K R SEMBACH
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3503 JOHNS HOPKINS UNIVERSITY **5104**
THE EVOLUTION AND CLUSTERING OF GALAXIES AT Z=1 AND
 11/27/1996 – 11/30/1998 FY98: \$114,000 Total: \$214,811
Prin. Invest.: A S SZALAY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3504 JOHNS HOPKINS UNIVERSITY **5105**
A ROBUST TEST OF THE UNIFIED MODEL FOR SEYFERT GALAXIES IMPLICATIONS FOR THE STARBURST PHENOMENON
 11/27/1996 – 11/30/1998 FY98: \$88,911 Total: \$169,586
Prin. Invest.: K A WEAVER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3537 JOHNS HOPKINS UNIVERSITY **5106**
PROBING THE X-RAY AND OPTICAL EVOLUTION OF GALAXY ROSAT DEEP CLUSTER SURVEY
 11/27/1996 – 11/14/1998 FY98: \$0 Total: \$61,700
Prin. Invest.: C A NORMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3542 JOHNS HOPKINS UNIVERSITY **5107**
A MULTIWAVELENGTH STUDY OF MOLECULES IN THE INTERSTELLAR MEDIUM
 11/27/1996 – 05/31/1998 FY98: \$0 Total: \$115,800
Prin. Invest.: D A NEUFELD
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3704 JOHNS HOPKINS UNIVERSITY **5108**
PROBING LOW IONIZATION GAS IN STARS & AGNS: THE SILENT
 01/24/1997 – 01/31/1999 FY98: -\$9,559 Total: \$36,441
Prin. Invest.: B R ESPEY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3869 JOHNS HOPKINS UNIVERSITY **5109**
DATA SET PRESERVATION FOR MAGNETIC FIELD EXPERIMENT VIKING SATELLITES
 01/29/1997 – 01/31/1999 FY98: \$0 Total: \$31,386
Prin. Invest.: D B HOLLAND
Tech. Officer: GSFC/J WILLETT
CASE Category: 13 – PHYSICS

NAG 5 3879 JOHNS HOPKINS UNIVERSITY **5110**
MULTI-POINT, MAGNETOSPHERIC RECONNAISSANCE IMAGING DYNAMICS, EVOLUTION, ORIGINS, AND STRUCTURE
 02/26/1997 – 02/28/1999 FY98: \$0 Total: \$92,314
Prin. Invest.: D G MITCHELL
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 – PHYSICS

NAG 5 3928 JOHNS HOPKINS UNIVERSITY **5111**
CHEMICAL EVOLUTION OF THE MILKY WAY GALAXY
 02/25/1997 – 02/28/1999 FY98: \$50,000 Total: \$100,000
Prin. Invest.: R F WYSE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3929 JOHNS HOPKINS UNIVERSITY 5112
WHAT IS THE NATURE OF ACCRETION IN ACTIVE GALACTIC
 03/03/1997 - 02/28/1999 FY98: \$0 Total: \$60,000
Prin. Invest.: J H KROLIK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4009 JOHNS HOPKINS UNIVERSITY 5113
INTERBALL: MAGNETOPAUSE STRUCTURE AND RESPONSE TO
 03/06/1997 - 02/28/1998 FY98: \$0 Total: \$88,446
Prin. Invest.: D G SIBECK
Tech. Officer: GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4010 JOHNS HOPKINS UNIVERSITY 5114
MODELING THE ENTRY OF SOLAR WIND PARTICLES INTO TH
 03/06/1997 - 04/30/1999 FY98: \$30,700 Total: \$89,900
Prin. Invest.: D WING
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4168 JOHNS HOPKINS UNIVERSITY 5115
PLANETARY AERONOMY
 03/15/1997 - 12/31/1997 FY98: \$60,000 Total: \$170,400
Prin. Invest.: D F STROBEL
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4199 JOHNS HOPKINS UNIVERSITY 5116
AN INFRARED INVESTIGATION OF COMET HYAKUTAKE (1996
 03/24/1997 - 06/30/1998 FY98: \$0 Total: \$46,271
Prin. Invest.: D WEAVER
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4261 JOHNS HOPKINS UNIVERSITY 5117
WINDOWLESS FUV LAMPS
 04/14/1997 - 12/31/1998 FY98: \$27,200 Total: \$63,100
Prin. Invest.: D R MCCANDLISS
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4365 JOHNS HOPKINS UNIVERSITY 5118
CONTINUATION OF THE VOYAGER INTERSTELLAR MISSION:
 04/23/1997 - 03/31/2001 FY98: \$475,000 Total: \$950,000
Prin. Invest.: D M KRIMIGIS
Tech. Officer: GSFC/C P HOLMES
CASE Category: 13 - PHYSICS

NAG 5 4399 JOHNS HOPKINS UNIVERSITY 5119
TO STUDY THE SOLAR TERRESTRIAL RELATIONS OBSERVATO
 04/16/1997 - 04/14/1998 FY98: \$0 Total: \$130,000
Prin. Invest.: D M RUST
Tech. Officer: GSFC/J DAVILA
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 5 4525 JOHNS HOPKINS UNIVERSITY 5120
PRESSURE PROFILES OF THE MAGNETOSPHERE AS REFLECTE
OBSERVATIONS
 05/02/1997 - 09/30/1998 FY98: \$0 Total: \$65,200
Prin. Invest.: D T NEWELL
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4548 JOHNS HOPKINS UNIVERSITY 5121
REFLECTRON TIME-OF-FLIGHT MASS SPECTROMETER INSTRU
 05/05/1997 - 05/11/1999 FY98: \$64,667 Total: \$221,167
Prin. Invest.: D W MCENTIRE
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4549 JOHNS HOPKINS UNIVERSITY 5122
ANALYSIS OF E IIC WAVE GENERATION AND PROPAGATION U
 05/06/1997 - 04/10/2000 FY98: \$70,000 Total: \$140,000
Prin. Invest.: D E ERLANDSON
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4582 JOHNS HOPKINS UNIVERSITY 5123
A LOW COST MERCURY ORBITER MISSION
 05/13/1997 - 03/11/1999 FY98: \$0 Total: \$94,000
Prin. Invest.: D H MAUK
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 4605 JOHNS HOPKINS UNIVERSITY 5124
ANALYZING SPACE-BASED INTERFEROMETRIC MEASUREMENTS MEA-
SUREMENTS OF GAMMA-RAY BURSTS
 06/06/1997 - 07/11/1998 FY98: \$0 Total: \$85,000
Prin. Invest.: L G TAFF
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4626 JOHNS HOPKINS UNIVERSITY 5125
UNMASKING OBSCURED SEYFERT 1 NUCLEI WITH RXTE
 05/21/1997 - 05/31/1999 FY98: \$0 Total: \$22,296
Prin. Invest.: K A WEAVER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4664 JOHNS HOPKINS UNIVERSITY 5126
ION CYCLOTRON WAVES: AN ISTP STUDY
 06/25/1997 - 05/31/1999 FY98: \$52,000 Total: \$101,931
Prin. Invest.: D J ANDERSON
Tech. Officer: GSFC/J G GREBOWSKY
CASE Category: 3 - PHYSICS

NAG 5 4672 JOHNS HOPKINS UNIVERSITY 5127
ISTP: MAGNETIC SHEATH PROCESSES AND TRANSIENT EVENT
 06/09/1997 - 05/31/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: D G SIBECK
Tech. Officer: GSFC/D EVANS
CASE Category: 3 - PHYSICS

NAG 5 4679 JOHNS HOPKINS UNIVERSITY 5128
CONCERNING THE SOLAR WIND INPUT INTO THE MAGNETOSP
 06/05/1997 - 05/31/1999 FY98: \$30,083 Total: \$47,083
Prin. Invest.: D G SIBECK
Tech. Officer: GSFC/D EVANS
CASE Category: 3 - PHYSICS

NAG 5 4696 JOHNS HOPKINS UNIVERSITY 5129
DISCOVERY FEASIBILITY STUDIES: MESSENGER
 05/23/1997 - 08/31/1997 FY98: \$0 Total: \$320,000
Prin. Invest.: T MUELLER
Tech. Officer: GSFC/M B NOLAN
CASE Category: 11 - ASTRONOMY

NAG 5 4697 JOHNS HOPKINS UNIVERSITY **5130**
DISCOVERY FEASIBILITY STUDIES: MESSENGER
 05/23/1997 - 08/31/1997 FY98: \$0 Total: \$300,000
Prin. Invest.: M CHIU
Tech. Officer: GSFC/M B NOLAN
CASE Category: 11 - ASTRONOMY

NAG 5 4698 JOHNS HOPKINS UNIVERSITY **5131**
DISCOVERY FEASIBILITY STUDIES: MESSENGER
 05/23/1997 - 08/31/1997 FY98: \$0 Total: \$330,000
Prin. Invest.: T PARDOE
Tech. Officer: GSFC/M B NOLAN
CASE Category: 11 - ASTRONOMY

NAG 5 4736 JOHNS HOPKINS UNIVERSITY **5132**
SCIENTIFIC AND TECHNICAL DEVELOPMENT OF THE NEXT G TELESCOPE
 06/11/1997 - 12/31/1998 FY98: \$189,289 Total: \$241,971
Prin. Invest.: R BURG
Tech. Officer: GSFC/E P SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 4780 JOHNS HOPKINS UNIVERSITY **5133**
RADIATIVE AND PHOTOCHEMICAL MODELING DURING POLAR
 06/09/1997 - 12/31/1999 FY98: \$158,556 Total: \$344,958
Prin. Invest.: S A LLOYD
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4955 JOHNS HOPKINS UNIVERSITY **5134**
AN OPTICAL INVESTIGATION OF THE GENESIS OF SOLAR A
 06/23/1997 - 05/31/1999 FY98: \$358,000 Total: \$658,000
Prin. Invest.: D M RUST
Tech. Officer: GSFC/W J WAGNER
CASE Category: 13 - PHYSICS

NAG 5 4969 JOHNS HOPKINS UNIVERSITY **5135**
COORDINATED ISTP SATELLITE - GROUND STUDY OF MAGNE PRO-
CESSES
 06/23/1997 - 06/14/1999 FY98: \$76,100 Total: \$148,300
Prin. Invest.: D OHTANI
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 5047 JOHNS HOPKINS UNIVERSITY **5136**
WIND-WAVE-CURRENT COUPLED MODEL
 08/22/1995 - 09/30/1999 FY98: \$52,751 Total: \$322,489
Prin. Invest.: O PHILLIPS
Tech. Officer: GSFC/S R LONG, GSFC/N E HUANG
CASE Category: 33 - OCEANOGRAPHY

NAG 5 5082 JOHNS HOPKINS UNIVERSITY **5137**
MEASUREMENTS OF TEMPERATURE FOR THE STUDIES OF DAYGLOW
EMISSIONS
 06/14/1996 - 05/31/1999 FY98: \$15,000 Total: \$59,500
Prin. Invest.: J YEE
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5122 JOHNS HOPKINS UNIVERSITY **5138**
ROCKET AND LABORATORY EXPERIMENTS IN ASTRONOMY
 02/21/1997 - 06/14/1999 FY98: \$520,000 Total: \$1,068,000
Prin. Invest.: P D FELDMAN
Tech. Officer: GSFC/B J FLOWERS
CASE Category: 13 - PHYSICS

NAG 5 5138 JOHNS HOPKINS UNIVERSITY **5139**
ALTIMETER SEA-STATE BIAS MODEL STUDY FUNDING FOR THE FIRST
YEAR OF THE GRANT
 04/10/1997 - 05/31/1999 FY98: \$81,588 Total: \$121,588
Prin. Invest.: D R THOMPSON
Tech. Officer: GSFC/D C VANDEMARK, GSFC/E J WALSH
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 5150 JOHNS HOPKINS UNIVERSITY **5140**
SUPPORT FOR SCOR WORKING GROUP ON THE COUPLING OF WINDS,
WAVES, AND CURRENTS IN COASTAL MODELS
 09/21/1997 - 12/31/1998 FY98: \$60,000 Total: \$60,000
Prin. Invest.: J FIELD
Tech. Officer: GSFC/S R LONG, GSFC/S R HUANG
CASE Category: 33 - OCEANOGRAPHY

NAG 5 5193 JOHNS HOPKINS UNIVERSITY **5141**
CONFERENCE IN ENVIRONMENTAL FLUID MECHANICS CONFERENCE IN
ENVIRONMENTAL FLUID MECHANICS
 04/20/1998 - 05/31/1998 FY98: \$6,600 Total: \$6,600
Prin. Invest.: H SALMUN, O M PHILLIPS
Tech. Officer: GSFC/S R LONG, GSFC/N E HUANG
CASE Category: 33 - OCEANOGRAPHY

NAG 5 5198 JOHNS HOPKINS UNIVERSITY **5142**
DENSITY TEMPERATURE & MEASUREMENTS FOR ICON ROCKET EXPERI-
MENT
 05/21/1998 - 02/28/1999 FY98: \$19,385 Total: \$19,385
Prin. Invest.: J H YEE
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6000 JOHNS HOPKINS UNIVERSITY **5143**
GLOBAL ATOMIC OXYGEN DISTRIBUTION IN THE MESOSPHERE
(80-105KM)
 08/26/1997 - 07/31/1999 FY98: \$0 Total: \$72,700
Prin. Invest.: D YEE
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 6014 JOHNS HOPKINS UNIVERSITY **5144**
A COMPACT PARTICLE DETECTOR
 09/15/1997 - 06/30/1999 FY98: \$0 Total: \$114,100
Prin. Invest.: D L MCNUTT
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6050 JOHNS HOPKINS UNIVERSITY **5145**
LOW LATITUDE CURRENT SYSTEMS DETERMINED FROM SATEL
OBSERVATIONS
 07/28/1997 - 06/30/1999 FY98: \$20,933 Total: \$81,933
Prin. Invest.: D GARY
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 6113 JOHNS HOPKINS UNIVERSITY **5146**
PROJECT ULYSSES HI-SCALE DATA ANALYSIS PHASE ACTIV
 07/28/1997 - 12/31/1998 FY98: \$0 Total: \$402,000
Prin. Invest.: M TOSSMAN
Tech. Officer: GSFC/J WILLETT
CASE Category: 13 - PHYSICS

NAG 5 6178 JOHNS HOPKINS UNIVERSITY **5147**
CRITICAL COMPARISON OF SUBSTORM TRIGGER MODELS AGAINST THE NEAR-EARTH TAIL
 07/28/1997 - 05/14/2001 FY98: \$35,246 Total: \$98,146
Prin. Invest.: D OHTANI
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6182 JOHNS HOPKINS UNIVERSITY **5148**
MAGNETIC FIELD-ALIGNED ELECTRODYNAMICS OF THE MIDDLE
 07/30/1997 - 06/30/1999 FY98: \$13,333 Total: \$53,333
Prin. Invest.: D H MAUK
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6400 JOHNS HOPKINS UNIVERSITY **5149**
SPACE OBSERVATIONS OF STARBURST GALAXIES (LTSA)
 10/10/1997 - 09/30/1998 FY98: \$125,000 Total: \$125,000
Prin. Invest.: T HECHMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6438 JOHNS HOPKINS UNIVERSITY **5150**
ANALYSIS OF ENERGETIC NEUTRAL ATOM IMAGES FROM THE SWEDISH MICRO-SATELLITE ASTRID-1
 10/31/1997 - 08/31/1999 FY98: \$55,200 Total: \$55,200
Prin. Invest.: E ROELOF
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6488 JOHNS HOPKINS UNIVERSITY **5151**
MINIATURIZED MODULAR IMAGING SYSTEM
 10/24/1997 - 10/14/1999 FY98: \$160,525 Total: \$160,525
Prin. Invest.: D GOLD
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 - MULTI INTERDISCIPLINARY

NAG 5 6513 JOHNS HOPKINS UNIVERSITY **5152**
GLOBAL HELIOSPHERIC STRUCTURE AND DYNAMICS
 10/27/1997 - 09/30/1998 FY98: \$25,000 Total: \$25,000
Prin. Invest.: D MCNUTT, JR.
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6568 JOHNS HOPKINS UNIVERSITY **5153**
THE MAGNETOTAIL CROSS-TAIL CURRENT SHEET: ITS STABILITY AND ITS ROLE IN BURSTY-BULK FLOWS AND SUBST
 11/12/1997 - 09/30/1999 FY98: \$69,300 Total: \$69,300
Prin. Invest.: D G MITCHELL
Tech. Officer: GSFC/J BOHLIN
CASE Category: 11 - ASTRONOMY

NAG 5 6732 JOHNS HOPKINS UNIVERSITY **5154**
MAGNETIC CATALYTIC VARIATION
 12/16/1997 - 12/11/1998 FY98: \$45,000 Total: \$45,000
Prin. Invest.: W B AIR
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 6764 JOHNS HOPKINS UNIVERSITY **5155**
MONITORING OF NGC 4151
 12/30/1997 - 12/11/1998 FY98: \$45,000 Total: \$45,000
Prin. Invest.: G KILISS
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 6898 JOHNS HOPKINS UNIVERSITY **5156**
MONITORING REPROCESSED FLUX IN MCG-5-23-16 WITH ASCA AND XTE
 06/01/1997 - 05/31/1998 FY98: \$16,748 Total: \$16,748
Prin. Invest.: K WEAVER
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6917 JOHNS HOPKINS UNIVERSITY **5157**
PRESIDENTIAL EARLY CAREER AWARD GRANT PROPOSAL
 03/11/1998 - 02/14/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: K A WEAVER
Tech. Officer: GSFC/L KALUZIENSKI
CASE Category: 11 - ASTRONOMY

NAG 5 7010 JOHNS HOPKINS UNIVERSITY **5158**
MEASURING THE AMOUNT OF COMPTON REFLECTION IN MCG-2-58-22XTE PROPOSAL A02
 02/17/1998 - 02/14/1999 FY98: \$11,668 Total: \$11,668
Prin. Invest.: K A WEAVER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7080 JOHNS HOPKINS UNIVERSITY **5159**
PYROTECHNIC ROCK CHIPPER
 03/10/1998 - 03/31/1999 FY98: \$47,671 Total: \$47,671
Prin. Invest.: A F CHENG
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 11 - ASTRONOMY

NAG 5 7186 JOHNS HOPKINS UNIVERSITY **5160**
INFRARED INVESTIGATION OF COMETARY VOLATILES
 03/25/1998 - 02/28/2001 FY98: \$68,000 Total: \$68,000
Prin. Invest.: H WEAVER
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 5 7189 JOHNS HOPKINS UNIVERSITY **5161**
DMSP SSJ4 DATA RESTORATION, CLASSIFICATION, AND ON-LINE DATA ACCESS
 04/09/1998 - 03/31/2000 FY98: \$29,500 Total: \$29,500
Prin. Invest.: S WINSTON
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 11 - ASTRONOMY

NAG 5 7227 JOHNS HOPKINS UNIVERSITY **5162**
TOMS VALIDATION AND UTLS PHOTOCHEMISTRY USING ER-2 AND
GROUND BASED DATASETS
 04/14/1998 - 04/14/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: S A LLOYD
Tech. Officer: GSFC/E HILSEN RATH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7235 JOHNS HOPKINS UNIVERSITY **5163**
A SEARCH FOR TOROIDAL MAGNETIC FIELDS IN THE SOLAR PHOTO-
SPHERE
 04/08/1998 - 04/30/1999 FY98: \$52,851 Total: \$52,851
Prin. Invest.: D M RUST
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7314 JOHNS HOPKINS UNIVERSITY **5164**
PLASMA PRESSURE IN THE TOPSIDE IONOSPHERE
 04/22/1998 - 03/31/1999 FY98: \$19,250 Total: \$19,250
Prin. Invest.: P T NEWELL
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7361 JOHNS HOPKINS UNIVERSITY **5165**
MIDDLEWORLD TRANSPORT WITHIN THREE-DIMENSIONAL MODELS:
CHARACTERIZATION AND SENSITIVITIES TO MODEL
 05/06/1998 - 03/31/1999 FY98: \$48,961 Total: \$48,961
Prin. Invest.: D W WAUGH
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7552 JOHNS HOPKINS UNIVERSITY **5166**
TROPOSPHERIC AND STRATOSPHERIC COMPOSITION RETRIEVALS
USING THE STELLAR OCCULTATION TECHNIQUE
 06/22/1998 - 01/31/2000 FY98: \$274,119 Total: \$274,119
Prin. Invest.: J YEE
Tech. Officer: GSFC/J A KAYE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 7621 JOHNS HOPKINS UNIVERSITY **5167**
AN INVESTIGATION OF RADIATIVE DYNAMICAL COUPLING IN THE JOVIAN-
ATMOSPHERE
 07/30/1998 - 07/14/1999 FY98: \$105,000 Total: \$105,000
Prin. Invest.: D F APPLEBY
Tech. Officer: GSFC/R BEEBE
CASE Category: 11 - ASTRONOMY

NAG 5 7633 JOHNS HOPKINS UNIVERSITY **5168**
WORKSHOP TO DEVELOP SCIENCE PLAN FOR INTERNATIONAL PROGRAM
ON ECOLOGY AND OCEANOGRAPHY
 08/21/1998 - 06/30/1999 FY98: \$15,000 Total: \$15,000
Prin. Invest.: E GROSS
Tech. Officer: HQ/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7697 JOHNS HOPKINS UNIVERSITY **5169**
PROPOSAL TITLED "A PROPOSAL TO INVESTIGATE OUTSTANDING PROBLEMS
IN ASTRONOMY BY THE INSTRUMENT DEFINITION"
 09/17/1998 - 11/30/1998 FY98: \$699,404 Total: \$699,404
Prin. Invest.: H FORD
Tech. Officer: GSFC/J JELETIC
CASE Category: 11 - ASTRONOMY

NAG 5 7724 JOHNS HOPKINS UNIVERSITY **5170**
QUANTITATIVE MAGNETOSPHERIC DYNAMICS FROM POLAR UV AND VIS-
IBLE IMAGERS
 09/24/1998 - 09/30/1999 FY98: \$260,000 Total: \$260,000
Prin. Invest.: C MENG
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1133 JOHNS HOPKINS UNIVERSITY **5171**
INTERDISCIPLINARY SCIENTIST FOR THE ADVANCED X-RAY ASTRO-
PHYSICS FACILITY
 01/11/1995 - 01/10/1999 FY98: \$0 Total: \$362,000
Prin. Invest.: R GIACCONI, R BURG, NONE
Tech. Officer: MSFC/M E ROSENTHAL
CASE Category: 11 - ASTRONOMY

NAG 8 1257 JOHNS HOPKINS UNIVERSITY **5172**
RESEARCH "MEASUREMENT OF LIQUID-TO-SOLID NUCLEATION RATES IN
UNDERCOOLED METALLIC MELTS
 04/18/1996 - 04/17/2000 FY98: \$70,417 Total: \$167,917
Prin. Invest.: J L KATZ
Tech. Officer: MSFC/P DOWNEY, MSFC/D WOODARD
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1377 JOHNS HOPKINS UNIVERSITY **5173**
R/S "NOVEL MICROGRAVITY OPTICAL TECHNIQUE FOR MOLECULARLY
ENGINEERING ELECTROPHORETIC MEDIA.
 07/23/1997 - 11/30/1998 FY98: \$118,000 Total: \$205,000
Prin. Invest.: D WIRTZ
Tech. Officer: MSFC/C TALLEY, MSFC/D SMITH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1527 JOHNS HOPKINS UNIVERSITY **5174**
AXAF INTERDISCIPLINARY SCIENTIST
 03/30/1998 - 02/28/1999 FY98: \$152,000 Total: \$152,000
Prin. Invest.: R GIACCONI, C NORMAN
Tech. Officer: MSFC/M E ROSENTHAL
CASE Category: 11 - ASTRONOMY

NAGW 648 JOHNS HOPKINS UNIVERSITY **5175**
PLANETARY AERONOMY
 09/01/1984 - 06/30/1997 FY98: \$0 Total: \$1,037,896
Prin. Invest.: D F STROBEL
Tech. Officer: HQ/J T BERGSTRALH, HQ/W L QUAIDE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 1885 JOHNS HOPKINS UNIVERSITY **5176**
MID INFRARED SPECTROSCOPIC INVESTIGATIONS
 12/06/1989 - 12/31/1996 FY98: \$0 Total: \$782,055
Prin. Invest.: J W SALISBURY
Tech. Officer: HQ/T A MAXWELL, HQ/M BALTUCK
CASE Category: 32 - GEOLOGICAL SCIENCE

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| NAGW 2508 JOHNS HOPKINS UNIVERSITY 5177 THE STUDY OF CLUSTERS OF GALAXIES AND LARGE-SCALE STRUCTURE 07/25/1991 - 09/30/1997 FY98: \$0 Total: \$504,400 <i>Prin. Invest.:</i> R BURG <i>Tech. Officer:</i> HQ/G S KUTTER, HQ/G R RIEGLER CASE Category: 11 - ASTRONOMY | NAGW 3697 JOHNS HOPKINS UNIVERSITY 5185 VENUS TECTONICS AND LITHOSPHERE STRUCTURE 09/07/1993 - 03/11/1998 FY98: \$0 Total: \$132,010 <i>Prin. Invest.:</i> M T ZUBER <i>Tech. Officer:</i> HC/J T BERGSTRALH CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAGW 2583 JOHNS HOPKINS UNIVERSITY 5178 NAGW-2583/JOHN HOPKINS UNIV/MODELING PERPENDICULAR CURRENT SHEETS IN THE EARTH'S MAGNETOTAIL 08/12/1991 - 09/30/1998 FY98: \$0 Total: \$358,784 <i>Prin. Invest.:</i> D G MITCHELL <i>Tech. Officer:</i> HQ/M M MELLOTT, HQ/J D BOHLIN CASE Category: 13 - PHYSICS | NAGW 3831 JOHNS HOPKINS UNIVERSITY 5186 SPATIAL DISTRIBUTION AND EVOLUTION OF LYMAN 12/17/1993 - 12/11/1996 FY98: \$0 Total: \$105,000 <i>Prin. Invest.:</i> A S SZALAY <i>Tech. Officer:</i> HQ/R V STACHNIK, HQ/E J WEILER CASE Category: 11 - ASTRONOMY |
| NAGW 2691 JOHNS HOPKINS UNIVERSITY 5179 AUTOMATED UNFOLDING OF GLOBAL MAGNETOSPHERIC IMAGES 08/07/1991 - 09/30/1997 FY98: -\$4,326 Total: \$413,732 <i>Prin. Invest.:</i> B H MAUK <i>Tech. Officer:</i> HQ/M M MELLOTT, HQ/J D BOHLIN CASE Category: 13 - PHYSICS | NAGW 3861 JOHNS HOPKINS UNIVERSITY 5187 JOHNS HOPKINS UNIV; STATISTICAL ANALYSIS OF TRIGONOMETRIC PARALLAXES 01/31/1994 - 12/31/1998 FY98: \$0 Total: \$159,300 <i>Prin. Invest.:</i> S CASERTANO <i>Tech. Officer:</i> HQ/R V STACHNIK, HQ/E J WEILER CASE Category: 11 - ASTRONOMY |
| NAGW 2866 JOHNS HOPKINS UNIVERSITY 5180 INTEGRATED DUAL IMAGING DETECTOR 02/10/1992 - 09/30/1997 FY98: \$0 Total: \$616,100 <i>Prin. Invest.:</i> D M RUST <i>Tech. Officer:</i> HQ/JK ALEXANDER, HQ/D A HOLLAND CASE Category: 11 - ASTRONOMY | NAGW 3991 JOHNS HOPKINS UNIVERSITY 5188 A GLOBAL 3D MODEL OF NEPTUNE'S MAGNETOSPHERE 06/15/1994 - 12/31/1996 FY98: -\$6,167 Total: \$65,833 <i>Prin. Invest.:</i> R L MCNUTT <i>Tech. Officer:</i> HQ/E C WHIPPLE, HQ/J D BOHLIN CASE Category: 1 - ASTRONOMY |
| NAGW 3147 JOHNS HOPKINS UNIVERSITY 5181 NAGW-3147/JOHNS HOPKINS UNIV/A MULTIWAVELENGTH STUDY OF MOLECULES IN THE INTERSTELLAR MEDIUM 08/04/1992 - 05/31/1997 FY98: \$0 Total: \$403,809 <i>Prin. Invest.:</i> D NEUFELD <i>Tech. Officer:</i> HQ/G R RIEGLER CASE Category: 11 - ASTRONOMY | NAGW 4043 JOHNS HOPKINS UNIVERSITY 5189 "HOT ION DYNAMICS OF JUPITER'S MAGNETOSPHERE" 06/14/1994 - 09/30/1997 FY98: \$0 Total: \$111,400 <i>Prin. Invest.:</i> M KANE <i>Tech. Officer:</i> HQ/E C WHIPPLE, HQ/J D BOHLIN CASE Category: 13 - PHYSICS |
| NAGW 3156 JOHNS HOPKINS UNIVERSITY 5182 NAGW-3156/JOHNS HOPKINS UNIV/VARIABILITY ANALYSIS AND THE STRUCTURE OF ACTIVE GALACTIC NUCLEI 09/04/1992 - 06/30/1997 FY98: \$0 Total: \$518,523 <i>Prin. Invest.:</i> J KROLIK <i>Tech. Officer:</i> HQ/G R RIEGLER CASE Category: 11 - ASTRONOMY | NAGW 4055 JOHNS HOPKINS UNIVERSITY 5190 CORRELATIVE STUDIES OF IONOSPHERIC ELECTRON TEMPERATURES AT HIGH LATITUDES 06/17/1994 - 04/30/1998 FY98: \$0 Total: \$209,900 <i>Prin. Invest.:</i> R E RLANDSON <i>Tech. Officer:</i> HQ/M MELLOTT CASE Category: 13 - PHYSICS |
| NAGW 3387 JOHNS HOPKINS UNIVERSITY 5183 SPACEBORNE GEOPHYSICAL SAMPLING DEVICE 02/25/1993 - 09/30/1997 FY98: \$0 Total: \$450,000 <i>Prin. Invest.:</i> A F CHENG <i>Tech. Officer:</i> HQ/H C BRINTON CASE Category: 19 - PHYSICAL SCIENCE, OTHER | NAGW 4133 JOHNS HOPKINS UNIVERSITY 5191 DISTRIBUTION AND EVOLUTION OF EMIC WAVES IN THE EARTH'S MAGNETOSPHERE 09/13/1994 - 05/31/1998 FY98: \$0 Total: \$170,700 <i>Prin. Invest.:</i> B J ALDERSON <i>Tech. Officer:</i> HQ/E C WHIPPLE, HQ/J D BOHLIN CASE Category: 11 - PHYSICS |
| NAGW 3449 JOHNS HOPKINS UNIVERSITY 5184 CROSS FIELD CURRENT DISRUPTION MECHANISM FOR SUBSTORM INITIATION 03/19/1993 - 09/30/1997 FY98: \$0 Total: \$251,300 <i>Prin. Invest.:</i> A Y LUI <i>Tech. Officer:</i> HQ/E C WHIPPLE, HQ/G L WITHBROE CASE Category: 13 - PHYSICS | NAGW 4198 JOHNS HOPKINS UNIVERSITY 5192 THE EFFECT OF MILD HYPERCAPNEA ON WEIGHTBEARING AND NON-WEIGHTBEARING RAT BONE 11/09/1994 - 08/31/1997 FY98: \$0 Total: \$100,000 <i>Prin. Invest.:</i> L SCHULTHEIS <i>Tech. Officer:</i> HQ/F M SULZMAN CASE Category: 54 - MEDICAL |

NAGW 4424 JOHNS HOPKINS UNIVERSITY **5193**
PRESSURE PROFILES OF THE MAGNETOSPHERE AS REFLECTED IN IONOSPHERIC OBSERVATIONS
 04/21/1995 – 03/31/1998 FY98: \$0 Total: \$124,200
Prin. Invest.: P T NEWELL
Tech. Officer: HQ/M M MELLOTT, HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4439 JOHNS HOPKINS UNIVERSITY **5194**
FRAMEWORK FOR THE STUDY OF HIGH LATITUDE LOWER THERMOSPHERIC STRUCTURE
 04/28/1995 – 04/30/1997 FY98: -\$2,676 Total: \$42,524
Prin. Invest.: G CROWLEY
Tech. Officer: HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4547 JOHNS HOPKINS UNIVERSITY **5195**
A COMPACT PARTICLE DETECTOR
 06/27/1995 – 09/30/1997 FY98: \$0 Total: \$217,200
Prin. Invest.: R MCNUTT, JR.
Tech. Officer: HQ/TKOSTIUK
CASE Category: 13 – PHYSICS

NAGW 4603 JOHNS HOPKINS UNIVERSITY **5196**
GLOBAL HELIOSPHERIC STRUCTURE AND DYNAMICS
 07/12/1995 – 02/28/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: R L MCNUTT
Tech. Officer: HQ/W V JONES, HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4660 JOHNS HOPKINS UNIVERSITY **5197**
COUPLING BETWEEN THE SUN AND TERRESTRIAL THERMOSPHERIC NEUTRAL WINDS
 07/28/1995 – 12/31/1997 FY98: \$0 Total: \$69,000
Prin. Invest.: L GOEMBEL
Tech. Officer: HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4716 JOHNS HOPKINS UNIVERSITY **5198**
OCCULTATION STAR CATALOG IMPROVEMENT USING HIPPARCOS DATA
 09/07/1995 – 09/30/1998 FY98: \$0 Total: \$34,135
Prin. Invest.: D W DUNHAM
Tech. Officer: HQ/R A STACHNIK
CASE Category: 11 – ASTRONOMY

NAGW 4729 JOHNS HOPKINS UNIVERSITY **5199**
ANALYSIS OF ENERGETIC NEUTRAL ATOM IMAGES FOR THE SWEDISH MICROSATELLITE ASTRID-1
 09/12/1995 – 08/31/1998 FY98: \$0 Total: \$102,700
Prin. Invest.: F C ROELOF
Tech. Officer: HQ/R A HOFFMAN, HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4882 JOHNS HOPKINS UNIVERSITY **5200**
WINDOWLESS FUV LAMPS
 12/05/1995 – 12/31/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: S R MCCANDISS
Tech. Officer: HQ/L TAFF, HQ/D W WEEDMAN
CASE Category: 13 – PHYSICS

NAGW 4902 JOHNS HOPKINS UNIVERSITY **5201**
SCIENCE DATA CENTER, FREJA PROJECT
 01/26/1996 – 01/31/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: L J ZANETTI
Tech. Officer: HQ/J WILLETT
CASE Category: 13 – PHYSICS

NAGW 4913 JOHNS HOPKINS UNIVERSITY **5202**
PLACING VARIOUS MAGNETOSPHERIC PHYSICS DATA SETS ON-LINE
 02/01/1996 – 09/30/1996 FY98: -\$1,363 Total: \$7,637
Prin. Invest.: D G SIBECK
Tech. Officer: HQ/J WILLETT
CASE Category: 13 – PHYSICS

NAGW 4979 JOHNS HOPKINS UNIVERSITY **5203**
AN INVESTIGATION OF RADIATIVE-DYNAMICAL COUPLING IN THE JOVIAN ATMOSPHERE
 03/01/1996 – 07/15/1998 FY98: \$0 Total: \$93,000
Prin. Invest.: J F APPLEBY
Tech. Officer: HQ/J RAHE
CASE Category: 13 – PHYSICS

NAGW 5054 JOHNS HOPKINS UNIVERSITY **5204**
GLOBAL ATOMIC OXYGEN DISTRIBUTION IN THE MESOSPHERE AND LOWER THERMOSPHERE
 05/23/1996 – 05/31/1997 FY98: \$0 Total: \$71,500
Prin. Invest.: J YEE
Tech. Officer: HQ/M M MELLOTT, HQ/G L WITHBROE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 5093 JOHNS HOPKINS UNIVERSITY **5205**
REFLECTRON TIME OF FLIGHT MASS SPECTROMETER INSTRUMENTATION
 06/28/1996 – 09/30/1997 FY98: \$0 Total: \$154,000
Prin. Invest.: R W MCENTIRE
Tech. Officer: HQ/T KOSTIUK, HQ/H C BRINTON
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 5105 JOHNS HOPKINS UNIVERSITY **5206**
MINIATURIZED MODULAR IMAGING SYSTEM
 06/10/1996 – 12/31/1998 FY98: \$0 Total: \$109,800
Prin. Invest.: R E GOLD
Tech. Officer: HQ/T KOSTIUK, HQ/H C BRINTON
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 5128 JOHNS HOPKINS UNIVERSITY **5207**
CRITICAL COMPARISON OF SUBSTORM TRIGGER MODELS AGAINST OBSERVATIONS IN THE NEAR-EARTH TAIL
 08/05/1996 – 05/14/1997 FY98: -\$1,360 Total: \$61,540
Prin. Invest.: S OHTANI
Tech. Officer: HQ/J D BOHLIN, HQ/G L WITHBROE
CASE Category: 11 – ASTRONOMY

NAGW 5139 JOHNS HOPKINS UNIVERSITY **5208**
SOLAR ACTIVITY RESEARCH WITH THE FLARE GENESIS TELESCOPE
 07/18/1996 – 05/31/1997 FY98: \$0 Total: \$280,000
Prin. Invest.: D M RUST
Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE
CASE Category: 11 – ASTRONOMY

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| NAS 5 27000 JOHNS HOPKINS UNIVERSITY 5209 DEVELOPMENT PHASE OF THE HOPKINS ULTRAVIOLET TELESCOPE 09/21/1981 – 09/30/1998 FY98: \$0 Total: \$34,089,575 <i>Prin. Invest.:</i> A F DAVIDSEN <i>Tech. Officer:</i> MSFC/J H OWENS CASE Category: 11 – ASTRONOMY | NGT 30356 JOHNS HOPKINS UNIVERSITY 5218 GLOBAL CHANGE FELLOWSHIP PROGRAM 09/04/1996 – 08/11/1997 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> M B PARLANGE <i>Tech. Officer:</i> HQ M Y WEI, HQ/R C HARRISS CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NAS 5 30403 JOHNS HOPKINS UNIVERSITY 5210 SPACE TELESCOPE IMAGING SPECTROGRAPH PROGRAM SUPPORT 02/04/1988 – 09/30/2001 FY98: \$408,938 Total: \$1,794,865 <i>Prin. Invest.:</i> W MOOS <i>Tech. Officer:</i> GSFC/D VITABLANO CASE Category: 41 – AERONAUTICAL ENGR | NGT 40004 JOHNS HOPKINS UNIVERSITY 5219 NATIONAL SPACE GRANT COLLEGE 10/04/1989 – 01/1/1998 FY98: \$0 Total: \$2,593,157 <i>Prin. Invest.:</i> R C HENRY <i>Tech. Officer:</i> HQ E T SCHWARTZ CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NAS 5 31373 JOHNS HOPKINS UNIVERSITY 5211 EOS INVESTIGATION 12/13/1991 – 12/14/2001 FY98: \$0 Total: \$385,000 <i>Prin. Invest.:</i> J SALISBURY <i>Tech. Officer:</i> GSFC/H BLODGET CASE Category: 31 – ATMOSPHERIC SCIENCE | NGT 51413 JOHNS HOPKINS UNIVERSITY 5220 GSRP 08/29/1995 – 08/31/1997 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> D S LITZMAN <i>Tech. Officer:</i> HQ J GLASCO CASE Category: 43 – CHEMICAL ENGR |
| NAS 5 32865 JOHNS HOPKINS UNIVERSITY 5212 DESIGN & DEVELOPMENT OF ADVANCED CAMERA SCIENCE 08/25/1995 – 12/31/1999 FY98: \$860,300 Total: \$2,366,824 <i>Prin. Invest.:</i> D FORD, D ILLINGWORTH <i>Tech. Officer:</i> GSFC/C KREBS CASE Category: 42 – ASTRONAUTICAL ENGR | NGT 51661 JOHNS HOPKINS UNIVERSITY 5221 GRAD STUDENT RESEARCH PROGRAM 08/15/1996 – 08/31/1997 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> A SZALAY <i>Tech. Officer:</i> HQ J HOLLAND CASE Category: 3 – PHYSICS |
| NAS 5 32985 JOHNS HOPKINS UNIVERSITY 5213 PHASE C/D DESIGN AND DEVELOPMENT OF THE FAR ULTRA-VOIET SPECTROSCOPIC EXPLORER (FUSE) MISSION 11/22/1995 – 02/10/1999 FY98: \$21,283,963 Total: \$101,702,012 <i>Prin. Invest.:</i> H W MOOS <i>Tech. Officer:</i> GSFC/D R MENGERS CASE Category: 11 – ASTRONOMY | NGT 5 30132 JOHNS HOPKINS UNIVERSITY 5222 THIRD YEAR FUNDING: "REFINED SOIL HEAT AND MASS TRANSFER PHYSICS FOR IMPROVING THE UTILITY OF REM 12/02/1997 – 08/31/1998 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> M B PARLANGE <i>Tech. Officer:</i> GSFC/G ASRAR CASE Category: 49 – MULTI INTERDISCIPL, OTHER |
| NAS 5 97179 JOHNS HOPKINS UNIVERSITY 5214 TIMED PHASE C/D LETTER CONTRACT 06/16/1997 – 01/31/2000 FY98: \$43,698,305 Total: \$55,404,205 <i>Prin. Invest.:</i> D GRANT <i>Tech. Officer:</i> GSFC/J J WOLFF CASE Category: 11 – ASTRONOMY | NGT 5 40029 JOHNS HOPKINS UNIVERSITY 5223 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM 01/24/1997 – 01/31/1999 FY98: \$475,000 Total: \$820,000 <i>Prin. Invest.:</i> R C HENRY <i>Tech. Officer:</i> GSFC/L KEFFER CASE Category: 49 – MULTI INTERDISCIPL, OTHER |
| NAS 5 97271 JOHNS HOPKINS UNIVERSITY 5215 AEROSPACE RESEARCH, DESIGN, AND DEVELOPMENT TASKS FOR NASA 10/01/1997 – 09/30/2002 FY98: \$17,542,128 Total: \$17,542,128 <i>Prin. Invest.:</i> T COUGHLIN <i>Tech. Officer:</i> GSFC/J J WOLFF CASE Category: 11 – ASTRONOMY | NGT 5 40049 JOHNS HOPKINS UNIVERSITY 5224 GLOBE-SPACE GRANT CONSORTIUM WORKSHOP 02/07/1997 – 12/14/1996 FY98: \$0 Total: \$19,340 <i>Prin. Invest.:</i> R C HENRY <i>Tech. Officer:</i> GSFC/L KEFFER CASE Category: 93 – MULTI INTERDISCIPL, OTHER |
| NCC 2 5081 JOHNS HOPKINS UNIVERSITY 5216 VESTIBULAR-NERVE INPUTS TO LINEAR VESTIBULO-OCULAR REFLEXES 07/15/1994 – 07/15/1997 FY98: \$0 Total: \$80,000 <i>Prin. Invest.:</i> L B MINOR <i>Tech. Officer:</i> ARC/D L TOMKO CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR) | NAG 5 2945 MORGAN STATE UNIVERSITY 5225 THE ENGINEERING ENRICHMENT PROGRAM 06/08/1995 – 12/31/1998 FY98: \$60,000 Total: \$298,955 <i>Prin. Invest.:</i> C WHITE <i>Tech. Officer:</i> GSFC/D MENCHAN CASE Category: 41 – ENGINEERING, OTHER |
| NCC 5 147 JOHNS HOPKINS UNIVERSITY 5217 GRAND CHALLENGE RESEARCH 08/16/1996 – 08/16/1999 FY98: \$320,000 Total: \$1,130,000 <i>Prin. Invest.:</i> P OLSON <i>Tech. Officer:</i> GSFC/J R FISCHER CASE Category: 29 – MATH/COMPUTER SCI, OTHER | NAG 5 3508 MORGAN STATE UNIVERSITY 5226 FORGING A PARTNERSHIP: A TWENTY-FIRST CENTURY APPROACH TO THE INVESTIGATION OF SCIENTIFIC... 10/31/1996 – 11/14/1998 FY98: \$869,000 Total: \$1,719,274 <i>Prin. Invest.:</i> E DELBATCH <i>Tech. Officer:</i> GSFC/C SOFFEN CASE Category: 11 – ASTRONOMY |

NAG 5 4401 MORGAN STATE UNIVERSITY **5227**
MODELING AND CHANGE POINT DETECTION IN MODIS ENGINE
 04/18/1997 – 12/31/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: J SMID
Tech. Officer: GSFC/B GUENTHER
CASE Category: 21 – MATHEMATICS

NAG 5 7623 MORGAN STATE UNIVERSITY **5228**
FUNDING FOR 1998 ENGINEERING ENRICHMENT PROGRAM AT MSU
 08/03/1998 – 07/31/1999 FY98: \$60,000 Total: \$60,000
Prin. Invest.: D WHITE
Tech. Officer: GSFC/D MENCHAN
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAG 9 998 MORGAN STATE UNIVERSITY **5229**
SMART-SENSOR DESIGN INCORPORATING SIGNAL PROCESSING FOR DATA-COMPRESSION AND FEATURE ENHANCEMENT
 03/31/1998 – 12/30/1998 FY98: \$100,000 Total: \$100,000
Prin. Invest.: J E WHITNEY *Prin. Invest.:* NONE
Tech. Officer: JSC/K KRISHEN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 5 122 MORGAN STATE UNIVERSITY **5230**
MORGAN NETWORK RESOURCE TRAINING SITE
 08/15/1995 – 08/14/1999 FY98: \$145,000 Total: \$1,844,523
Prin. Invest.: W LUPTON
Tech. Officer: GSFC/J BENNETT
CASE Category: 22 – COMPUTER SCIENCE

NCC 5 199 MORGAN STATE UNIVERSITY **5231**
LABORATORY STUDY OF THE BEHAVIOR OF SATURATED SEDIMENT
 06/10/1997 – 05/31/1999 FY98: \$90,000 Total: \$271,372
Prin. Invest.: D C HELM
Tech. Officer: GSFC/B G BILLS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 5 204 MORGAN STATE UNIVERSITY **5232**
THE MAGNETIC, TRANSPORT AND STRUCTURAL PROPERTIES OF MAGNETIC OXIDE FILMS
 06/11/1997 – 05/31/1999 FY98: \$75,000 Total: \$184,588
Prin. Invest.: C WILLIAMS
Tech. Officer: GSFC/J S CHITWOOD
CASE Category: 13 – PHYSICS

NGT 5 90007 MORGAN STATE UNIVERSITY **5233**
USRP
 12/30/1996 – 08/14/1997 FY98: \$0 Total: \$12,000
Prin. Invest.: E DELOATCH
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 46 – MECHANICAL ENGR

NGT 5 90053 MORGAN STATE UNIVERSITY **5234**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 02/20/1997 – 08/14/1998 FY98: \$96,000 Total: \$228,000
Prin. Invest.: E DELOATCH
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 – ENGINEERING, OTHER

NAG 8 992 SALISBURY STATE UNIVERSITY **5235**
JOVE
 12/01/1993 – 05/31/1997 FY98: -\$27,394 Total: \$79,606
Prin. Invest.: J L TYROLL, A PICA, S HETZLER
Tech. Officer: MSFC/F SIX
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NCC 2 1041 TOWSON STATE UNIVERSITY **5236**
THE EVOLUTION OF DUST IN THE MULTIPHASE INTERSTELLAR MEDIUM: GRAIN DESTRUCTION PROCESS
 06/03/1998 – 05/31/1999 FY98: \$15,000 Total: \$15,000
Prin. Invest.: M G WOLFIRE
Tech. Officer: ARC/D J HOLLENBACH
CASE Category: 11 – ASTRONOMY

NAG 1 1485 UNIVERSITY OF MARYLAND – COLLEGE PARK **5237**
SCALABLE RUNTIME SUPPORT FOR SPARSE AND ADAPTIVE COMPUTATIONS
 03/01/1993 – 02/28/1997 FY98: -\$1 Total: \$1,429,000
Prin. Invest.: J H SALTZ
Tech. Officer: LARC/E J PRIOR, LARC/M D SALAS
CASE Category: 22 – COMPUTER SCIENCE

NAG 1 1655 UNIVERSITY OF MARYLAND – COLLEGE PARK **5238**
IMPROVED CFD TRANSONICS FOR ROTORCRAFT APPLICATIONS
 11/16/1994 – 09/30/1998 FY98: \$20,000 Total: \$122,596
Prin. Invest.: J D BAEDER
Tech. Officer: LARC/K S BRENTNER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1730 UNIVERSITY OF MARYLAND – COLLEGE PARK **5239**
IMPACT OF U.S. GOVERNMENT IN-HOUSE RESEARCH AND DEVELOPMENT ON THE ADVANCEMENT OF AERODYNAMICS
 06/05/1995 – 06/04/1998 FY98: \$0 Total: \$75,001
Prin. Invest.: J D ANDERSON
Tech. Officer: LARC/D M BUSHNELL, LARC/R V HARRIS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1796 UNIVERSITY OF MARYLAND – COLLEGE PARK **5240**
CENTER FOR HYPERSONIC EDUCATION AND RESEARCH
 01/24/1996 – 02/28/1998 FY98: \$0 Total: \$340,001
Prin. Invest.: M J LEWIS
Tech. Officer: LARC/S MASSENBERG
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1828 UNIVERSITY OF MARYLAND – COLLEGE PARK **5241**
LARGE-EDDY SIMULATION OF RELAMINARIZATION AND RETRANSITION
 04/11/1996 – 04/09/1998 FY98: \$12,998 Total: \$79,955
Prin. Invest.: U PIOMELI
Tech. Officer: LARC/C L STREETT, LARC/W L SELLERS, III
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1831 UNIVERSITY OF MARYLAND – COLLEGE PARK **5242**
NEXT GENERATION ALGORITHMS FOR SHORTWAVE RADIATION BUDGETS AND CLIMATE RESEARCH
 04/30/1996 – 06/30/1999 FY98: \$102,939 Total: \$295,815
Prin. Invest.: R T PINKER
Tech. Officer: LARC/A B CARLSON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1832 UNIVERSITY OF MARYLAND - COLLEGE PARK **5243**
DEVELOPMENT OF CORRECTIONS FOR BIOMASS BURNING EFFECTS IN
VERSION TWO OF GEWEX SRB ALGORITHM
 04/30/1996 - 04/30/1999 FY98: \$90,000 Total: \$260,703
Prin. Invest.: R T PINKER
Tech. Officer: LARC/A B CARLSON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1880 UNIVERSITY OF MARYLAND - COLLEGE PARK **5244**
LARGE EDDY SIMULATION OF THE SOUND EMISSION FROM UNSTEADY
FLOW SEPARATION
 11/25/1996 - 11/30/1998 FY98: \$50,001 Total: \$100,001
Prin. Invest.: U PIOMELLI
Tech. Officer: LARC/M G MACARAEG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1882 UNIVERSITY OF MARYLAND - COLLEGE PARK **5245**
LARGE EDDY SIMULATION OF ATTACHMENT-LINE INSTABILITY
 11/26/1996 - 11/30/1997 FY98: \$0 Total: \$55,555
Prin. Invest.: U PIOMELLI
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1897 UNIVERSITY OF MARYLAND - COLLEGE PARK **5246**
INVESTIGATION OF TROPICAL TROPOSPHERIC WATER VAPOR MY 1/3
 02/13/1997 - 02/12/1999 FY98: \$53,000 Total: \$108,000
Prin. Invest.: A E DESSLER
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2024 UNIVERSITY OF MARYLAND - COLLEGE PARK **5247**
DIRECT MEASUREMENTS OF TROPOSPHERIC OZONE FROM TOMS DATA
 03/26/1998 - 01/31/1999 FY98: \$115,000 Total: \$115,000
Prin. Invest.: R D HUDSON
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 557 UNIVERSITY OF MARYLAND - COLLEGE PARK **5248**
HIGH RESOLUTION FAR-INFRARED STUDIES OF COMPACT REGIONS OF
STAR-FORMING MOLECULAR CLOUDS
 01/15/1989 - 10/31/1996 FY98: \$0 Total: \$153,304
Prin. Invest.: L G MUNDY
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 2 627 UNIVERSITY OF MARYLAND - COLLEGE PARK **5249**
"PIONEER 10/11 DATA ANALYSIS AND INTERPRETATION"
 03/15/1990 - 12/31/1997 FY98: \$0 Total: \$2,335,721
Prin. Invest.: F B McDONALD
Tech. Officer: ARC/L E LASHER, ARC/R O FIMMEL
CASE Category: 11 - ASTRONOMY

NAG 2 889 UNIVERSITY OF MARYLAND - COLLEGE PARK **5250**
HELICOPTER VIBRATION REDUCTION WITH DYNAMICALLY TUNED BLADE
PITCH LINKS
 03/24/1994 - 02/28/1997 FY98: \$0 Total: \$80,000
Prin. Invest.: I CHOPRA
Tech. Officer: ARC/S R KOTTAPALLI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1122 UNIVERSITY OF MARYLAND - COLLEGE PARK **5251**
PROPOSAL FOR FURTHER DEVELOPMENT, SUPPORT, AND ENHANCEMENT OF CONJUIT
 03/17/1997 - 01/14/1999 FY98: \$60,000 Total: \$120,013
Prin. Invest.: W S LEVINE
Tech. Officer: ALC/M B TISCHLER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1231 UNIVERSITY OF MARYLAND - COLLEGE PARK **5252**
USE OF ON-BALDE CONTROLS FOR HANDLING QUALITIES ENHANCEMENT
 06/24/1998 - 12/31/1998 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R C ELI, NONE
Tech. Officer: ALC/M B TISCHLER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1253 UNIVERSITY OF MARYLAND - COLLEGE PARK **5253**
LEARNING BINAURALLY-DIRECTED MOVEMENT: REQUEST FOR SPECIFIC EQUIPMENT TO SUPPORT RESEARCH IN NEURO
 08/26/1998 - 11/10/1998 FY98: \$19,800 Total: \$19,800
Prin. Invest.: S S HAMMA
Tech. Officer: ARC/C C JORGENSEN, ARC/C L JACKSON
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NAG 3 1395 UNIVERSITY OF MARYLAND - COLLEGE PARK **5254**
CRITICAL DYNAMICS OF FLUIDS
 12/21/1992 - 12/4/1996 FY98: \$0 Total: \$596,779
Prin. Invest.: R A FERRELL
Tech. Officer: LERC/R A WILKINSON
CASE Category: 13 - PHYSICS

NAG 3 1488 UNIVERSITY OF MARYLAND - COLLEGE PARK **5255**
PRIMARY ZONE FUEL-AIR MIXING STUDIES FOR LOW NOX ADVANCED
SUBSONIC COMBUSTOR DEVELOPMENT
 04/29/1993 - 07/31/1998 FY98: \$0 Total: \$260,996
Prin. Invest.: A K GUPTA, H L RUSSELL
Tech. Officer: LERC/T M SANDERS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1867 UNIVERSITY OF MARYLAND - COLLEGE PARK **5256**
CRITICAL DYNAMICS FOR AMBIENT TEMPERATURE AND LOW TEMPERATURE PHASE TRANSITIONS
 05/09/1996 - 05/01/2000 FY98: \$64,000 Total: \$222,000
Prin. Invest.: R A FERRELL
Tech. Officer: LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1950 UNIVERSITY OF MARYLAND - COLLEGE PARK **5257**
SPEED IMPROVEMENTS IN THE UNIVERSITY OF MD OPEN CORE COMPOSITE FLYWHEEL
 08/13/1996 - 08/14/1998 FY98: \$0 Total: \$150,545
Prin. Invest.: J A KRK, D K ANAND
Tech. Officer: LERC/R F BEACH, LERC/B A KAMFMAN
CASE Category: 43 - ENGINEERING, OTHER

NASA'S UNIVERSITY PROGRAM

NAG 3 1960 UNIVERSITY OF MARYLAND - COLLEGE PARK **5258**
DIFFUSION FLAME STRUCTURE, SHAPE, EXTINCTION, GEOMETRICAL CONSIDERATION
 09/04/1996 - 05/30/1998 FY98: \$51,311 Total: \$149,207
Prin. Invest.: J L TORERO
Tech. Officer: LERC/D P STOCKER, LERC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1961 UNIVERSITY OF MARYLAND - COLLEGE PARK **5259**
FLAMMABILITY DIAGRAMS OF COMBUSTIBLE MATERIALS IN MICROGRAVITY
 09/04/1996 - 05/31/2000 FY98: \$94,255 Total: \$154,614
Prin. Invest.: J QUINTIERE
Tech. Officer: LERC/H ROSS
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2106 UNIVERSITY OF MARYLAND - COLLEGE PARK **5260**
UNIVERSITY RESEARCH AND TRAINING PROGRAM IN HYPERSONIC PULSION/AIRFRAME INTEGRATION
 02/05/1998 - 12/04/2000 FY98: \$100,000 Total: \$100,000
Prin. Invest.: M J LEWIS
Tech. Officer: LERC/S R THOMAS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2139 UNIVERSITY OF MARYLAND - COLLEGE PARK **5261**
SPECTRAL ELEMENT SIMULATIONS OF THERMAL CONVECTION IN A ROTATING HEMISPHERICAL SHELL WITH RADIAL GRADIENT
 03/17/1998 - 01/05/2000 FY98: \$54,200 Total: \$54,200
Prin. Invest.: A DEANE
Tech. Officer: LERC/A CHAIT
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 705 UNIVERSITY OF MARYLAND - COLLEGE PARK **5262**
RESEARCH RELATIVE TO ION AND ELECTRON EXPERIMENT
 10/01/1985 - 11/30/1997 FY98: \$0 Total: \$716,445
Prin. Invest.: G GLOECKLER, A B GALVIN, G M MASON
Tech. Officer: GSFC/G BULLOCK
CASE Category: 11 - ASTRONOMY

NAG 5 867 UNIVERSITY OF MARYLAND - COLLEGE PARK **5263**
REMOTE SENSING OF THE ATMOSPHERE, TWO-LEVEL ANALYSIS—THE AFRICAN DROUGHT
 01/01/1987 - 01/31/1998 FY98: -\$9 Total: \$884,189
Prin. Invest.: F E BAER, Y MINTZ
Tech. Officer: GSFC/J R BATES
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 914 UNIVERSITY OF MARYLAND - COLLEGE PARK **5264**
MESOSCALE SURFACE RADIATION BUDGETS FROM SATELLITE OBSERVATIONS: DERIVATION AND VALIDATION
 07/01/1987 - 10/31/1996 FY98: -\$2,032 Total: \$942,450
Prin. Invest.: R T PINKER
Tech. Officer: GSFC/M D CHOU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1101 UNIVERSITY OF MARYLAND - COLLEGE PARK **5265**
COMPREHENSIVE THEORETICAL & COMPUTATIONAL MODELING PROGRAM
 12/01/1988 - 04/30/1999 FY98: \$300,000 Total: \$4,589,801
Prin. Invest.: K PAPADOPOULOS
Tech. Officer: GSFC/S A CURTIS, GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 1129 UNIVERSITY OF MARYLAND - COLLEGE PARK **5266**
CLUSTER & CORONAL MASS EJECTIONS
 04/15/1989 - 03/14/1999 FY98: \$15,000 Total: \$377,895
Prin. Invest.: M A COPLAN
Tech. Officer: GSFC/K W OGILVIE
CASE Category: 13 - PHYSICS

NAG 5 1696 UNIVERSITY OF MARYLAND - COLLEGE PARK **5267**
PARTICIPATION IN TOMS MISSION
 07/15/1991 - 05/31/1998 FY98: \$34,500 Total: \$597,338
Prin. Invest.: R D HUDSON
Tech. Officer: GSFC/J R HERMAN, GSFC/R D MCPETERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1782 UNIVERSITY OF MARYLAND - COLLEGE PARK **5268**
ATMOSPHERE LIDAR: METEOROLOGICAL OBSERVATIONS & NEW INSTRUMENT CONCEPTS
 09/10/1991 - 03/31/1997 FY98: \$0 Total: \$90,793
Prin. Invest.: T D WILKERSON
Tech. Officer: GSFC/G K SCHWEMMER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1835 UNIVERSITY OF MARYLAND - COLLEGE PARK **5269**
CLIMATE MODEL CALCULATIONS OF THE EFFECTS OF VOLCANOES ON GLOBAL CLIMATE
 11/27/1991 - 11/30/1996 FY98: \$0 Total: \$442,200
Prin. Invest.: A ROBUCK, K E TAYLOR
Tech. Officer: GSFC/L S WALTER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2001 UNIVERSITY OF MARYLAND - COLLEGE PARK **5270**
SOLAR FLARE PHYSICS
 07/01/1992 - 12/31/1998 FY98: \$94,495 Total: \$672,729
Prin. Invest.: M R KUNDU, E J SCHMAHL, M J ASCHWANDER
Tech. Officer: GSFC/C J CRANNELL
CASE Category: 11 - ASTRONOMY

NAG 5 2117 UNIVERSITY OF MARYLAND - COLLEGE PARK **5271**
BIOPHYSICAL MODELS AND SATELLITE DATA: FURTHER ANALYSIS OF THE FIFE RESULTS AT THE UNIV OF MARYLAND
 10/09/1992 - 12/31/1996 FY98: \$0 Total: \$335,740
Prin. Invest.: R D HUDSON
Tech. Officer: GSFC/F HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2293 UNIVERSITY OF MARYLAND - COLLEGE PARK **5272**
BIOSPHERIC DYNAMICS IN THE BOREAL FOREST ECOTONE
 06/17/1993 - 09/30/1997 FY98: \$0 Total: \$270,000
Prin. Invest.: S N GOWARD
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2308 UNIVERSITY OF MARYLAND - COLLEGE PARK **5273**
BIOPHYSICAL SIGNIFICANCE OF SPECTRAL VEGETATION INDICES IN THE BOREAL FOREST
 07/14/1993 - 09/30/1997 FY98: -\$1 Total: \$248,399
Prin. Invest.: C L WALTHALL
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

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| NAG 5 2339 UNIVERSITY OF MARYLAND - COLLEGE PARK 5274 CO2 WATER FLUXES IN THE BOREAL FOREST OVERSTORY 07/27/1993 - 07/31/1997 FY98: \$0 Total: \$106,641 Prin. Invest.: J SULLIVAN Tech. Officer: GSFC/E MIDDLETON CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 2648 UNIVERSITY OF MARYLAND - COLLEGE PARK 5282 NASA SPACE COMMUNICATIONS INFRASTRUCTURE SYSTEM OF INFORMATION HANDLING AND RESOURCES MANAGEMENT... 07/14/1994 - 37/14/1997 FY98: \$0 Total: \$1,499,635 Prin. Invest.: E MILLER, AKIN Tech. Officer: GSFC/D J HEI CASE Category: 49 - ENGINEERING, OTHER |
| NAG 5 2364 UNIVERSITY OF MARYLAND - COLLEGE PARK 5275 A SEARCH FOR ROTATIONAL MODULATION OF THE CORONAL/ TRANSITION REGION RADIATION FROM AB 09/09/1993 - 03/14/1997 FY98: \$0 Total: \$81,342 Prin. Invest.: S M WHITE Tech. Officer: HQ/R OLIVERSEN CASE Category: 11 - ASTRONOMY | NAG 5 2754 UNIVERSITY OF MARYLAND - COLLEGE PARK 5283 PREPARATION OF FLIGHT OPERATIONS AND IWS INTERGRATION OF THE CELIAS EXPERIMENT ON THE SOHO SPACECRAFT 10/18/1994 - 03/31/1998 FY98: \$428,731 Total: \$1,837,731 Prin. Invest.: F IPAVICH Tech. Officer: GSFC/A POLAND CASE Category: 11 - ASTRONOMY |
| NAG 5 2370 UNIVERSITY OF MARYLAND - COLLEGE PARK 5276 MODELING AND REMOTE SENSING OF RADIANT ENERGY INTERACTION AND PHYSIOLOGICAL FUNCTIONING IN A... 09/21/1993 - 12/31/1996 FY98: -\$852 Total: \$285,712 Prin. Invest.: J TOWNSHEND, R MYNENI Tech. Officer: GSFC/D WILLIAMS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 2783 UNIVERSITY OF MARYLAND - COLLEGE PARK 5284 THRESHOLDING COREGISTRATION, AND STOCHASTIC METHODS OF VALIDATION OF RAINFALL ESTIMATES FROM SPACE 11/10/1994 - 01/14/1998 FY98: \$0 Total: \$285,000 Prin. Invest.: B KEDEM, D A SHORT Tech. Officer: GSFC/O W THIELE CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NAG 5 2380 UNIVERSITY OF MARYLAND - COLLEGE PARK 5277 SEARCH FOR GALACTIC GAMMA-RAY LINE EMISSION USING BATSE 09/29/1993 - 09/30/1998 FY98: \$0 Total: \$237,278 Prin. Invest.: M LEVENTHAL Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE CASE Category: 11 - ASTRONOMY | NAG 5 2810 UNIVERSITY OF MARYLAND - COLLEGE PARK 5285 THE SOLAR WIND AND SUPRATHERMAL ION COMPOSITION INVESTIGATION (SMS) ON THE WIND SPACECRAFT 12/12/1994 - 03/14/1999 FY98: \$0 Total: \$1,512,800 Prin. Invest.: G GLOECKLER Tech. Officer: GSFC/K W OGILVIE CASE Category: 19 - PHYSICAL SCIENCE, OTHER |
| NAG 5 2386 UNIVERSITY OF MARYLAND - COLLEGE PARK 5278 ANNIHILATION RADIATION FROM THE MILKY-WAY GALAXY 10/06/1993 - 09/30/1997 FY98: \$0 Total: \$20,000 Prin. Invest.: M LEVENTHAL Tech. Officer: GSFC/N GAHRELS CASE Category: 11 - ASTRONOMY | NAG 5 2856 UNIVERSITY OF MARYLAND - COLLEGE PARK 5286 ANALYSES OF MULTISPECTRAL MULTIANGLE ASAS DATA ACQUIRED OVER BOREAL FOREST SITES 12/29/1994 - 01/14/1998 FY98: \$0 Total: \$226,230 Prin. Invest.: C A RUSSELL Tech. Officer: GSFC/J IRONS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 2396 UNIVERSITY OF MARYLAND - COLLEGE PARK 5279 AVHRR PATHFINDER LAND DATA VALIDATION 10/15/1993 - 12/31/1997 FY98: \$0 Total: \$215,147 Prin. Invest.: J TOWNSHEND Tech. Officer: GSFC/K J RANSON CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 2865 UNIVERSITY OF MARYLAND - COLLEGE PARK 5287 MISSION OPERATIONS AND DATA ANALYSIS FOR THE STEP SUBSYSTEM OF THE EPACT EXPERIMENT ON THE WIND... 01/09/1995 - 01/14/1999 FY98: \$0 Total: \$554,992 Prin. Invest.: G M MASON, D C HAMILTON Tech. Officer: GSFC/T T VON ROSENINGE CASE Category: 19 - PHYSICAL SCIENCE, OTHER |
| NAG 5 2400 UNIVERSITY OF MARYLAND - COLLEGE PARK 5280 ASTROPHYSICS CONFERENCE SUPPORT 10/13/1993 - 01/31/1998 FY98: \$0 Total: \$125,000 Prin. Invest.: J D TRASKO Tech. Officer: GSFC/S S HOLT CASE Category: 11 - ASTRONOMY | NAG 5 2885 UNIVERSITY OF MARYLAND - COLLEGE PARK 5288 THE CONTRIBUTION OF ACTIVE STARS TO THE DIFFUSE GALACTIC GAMMA-RAY BACKGROUND 02/07/1995 - 02/14/1998 FY98: \$0 Total: \$23,000 Prin. Invest.: S M WHITE Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE CASE Category: 11 - ASTRONOMY |
| NAG 5 2640 UNIVERSITY OF MARYLAND - COLLEGE PARK 5281 A DEEP ROSAT HRI OBSERVATION OF NGC 1068 07/05/1994 - 01/14/1998 FY98: \$0 Total: \$45,000 Prin. Invest.: A WILCOX Tech. Officer: GSFC/R PETRE CASE Category: 11 - ASTRONOMY | NAG 5 2886 UNIVERSITY OF MARYLAND - COLLEGE PARK 5289 THE DYNAMICS OF PROTOSTELLAR MASS OUTFLOWS 02/07/1995 - 02/14/1997 FY98: \$0 Total: \$69,000 Prin. Invest.: J M STONE Tech. Officer: GSFC/D WEST CASE Category: 11 - ASTRONOMY |

NAG 5 2895 UNIVERSITY OF MARYLAND - COLLEGE PARK **5290**
DYNAMIC QUERIES INTERFACES FOR THE EOSDIS INFORMATION SYSTEM
 02/17/1995 - 02/28/1998 FY98: \$0 Total: \$431,261
Prin. Invest.: B SHNEIDERMAN, C PLAISANE
Tech. Officer: GSFC/C A ROUFF
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2926 UNIVERSITY OF MARYLAND - COLLEGE PARK **5291**
MULTI-MISSION AND MULTISPECTRAL ASTROPHYSICS DATA CATALOG MANAGEMENT SYSTEM
 04/03/1995 - 06/14/1999 FY98: \$55,000 Total: \$214,211
Prin. Invest.: N ROUSSOPOULOS
Tech. Officer: GSFC/C Y CHEUNG
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2963 UNIVERSITY OF MARYLAND - COLLEGE PARK **5292**
SOLAR CYCLE DYNAMICS OF SOLAR MAGNETOSPHERIC AND HELIOSPHERIC PARTICLES AND LONG-TERM ATMOSPHERIC..
 06/09/1995 - 09/30/1999 FY98: \$297,000 Total: \$2,867,335
Prin. Invest.: G M MASON
Tech. Officer: GSFC/T T VON ROSENVINGE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 2986 UNIVERSITY OF MARYLAND - COLLEGE PARK **5293**
GLOBAL LAND COVER MEASUREMENTS FOR GLOBAL CHANGE RESEARCH
 06/29/1995 - 01/14/1997 FY98: -\$549 Total: \$109,072
Prin. Invest.: W LAWRENCE, NONE
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3028 UNIVERSITY OF MARYLAND - COLLEGE PARK **5294**
THE THEORETICAL PROPERTIES OF OLD STELLAR POPULATIONS
 10/02/1995 - 10/14/1999 FY98: \$120,000 Total: \$288,293
Prin. Invest.: R A BELL
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3087 UNIVERSITY OF MARYLAND - COLLEGE PARK **5295**
PARTICIPATION IN ECS TIRECKICKING ACTIVITIES
 10/11/1995 - 08/31/1997 FY98: \$0 Total: \$35,000
Prin. Invest.: D EL SALEOUS
Tech. Officer: GSFC/H RAMAPRIYAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3093 UNIVERSITY OF MARYLAND - COLLEGE PARK **5296**
GAMMA-RAY SPECTROSCOPY OF NEARBY OB ASSOCIATIONS OBSERVATIONS
 10/12/1995 - 10/14/1996 FY98: \$0 Total: \$16,746
Prin. Invest.: D DWEYER
Tech. Officer: GSFC/D NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3096 UNIVERSITY OF MARYLAND - COLLEGE PARK **5297**
LAND COVER MAPPING OF TEMPERATE ASIA USING 1KM AND 4KM AVHRR DATA
 10/05/1995 - 10/14/1997 FY98: \$0 Total: \$40,000
Prin. Invest.: C O JUSTICE, J R TOWNSHEND
Tech. Officer: GSFC/C J TUCKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3104 UNIVERSITY OF MARYLAND - COLLEGE PARK **5298**
INTEGRATION AND TESTS OF SUPERCONDUCTING ANGULAR ACCELEROMETERS WITH THE SUPERCONDUCTING GRAVITY...
 10/17/1995 - 11/30/1997 FY98: \$0 Total: \$590,000
Prin. Invest.: H PAIK
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3116 UNIVERSITY OF MARYLAND - COLLEGE PARK **5299**
A SEARCH FOR HIGH ENERGY COMPONENT OF COSMIC GAMMA RAY BURST BY AVERAGING BATSE, COMPTEL, AND..
 10/17/1995 - 10/31/1996 FY98: -\$2,062 Total: \$17,938
Prin. Invest.: R Z SAGDEEV
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3134 UNIVERSITY OF MARYLAND - COLLEGE PARK **5300**
IMGRASS RADIATION AND REMOTE SENSING PROGRAMS IN SUPPORT OF BSRN
 01/23/1996 - 02/28/1999 FY98: \$15,000 Total: \$45,000
Prin. Invest.: D T PINKER
Tech. Officer: GSFC/D CHOW
CASE Category: 11 - ASTRONOMY

NAG 5 3172 UNIVERSITY OF MARYLAND - COLLEGE PARK **5301**
COMPARISON OF THE RADIATIVE AND PHYSIOLOGICAL EFFECTS OF DOUBLED CO2 ON THE GLOBAL CLIMATE . . .
 02/22/1996 - 03/31/1999 FY98: \$109,577 Total: \$276,676
Prin. Invest.: L BOUNOUA, NONE
Tech. Officer: GSFC/P J SELLERS, GSFC/J G COLLATZ
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3243 UNIVERSITY OF MARYLAND - COLLEGE PARK **5302**
THE UNIVERSITY OF MARYLAND COOPERATION WITH CARPE
 05/21/1996 - 05/31/1999 FY98: \$25,000 Total: \$352,900
Prin. Invest.: C O JUSTICE
Tech. Officer: GSFC/C J TUCKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3277 UNIVERSITY OF MARYLAND - COLLEGE PARK **5303**
HIGH RESOLUTION SPECTRAL AND TEMPORAL STUDIES OF CYGNUS X-3 WITH XTE AND ASCA
 07/01/1996 - 01/14/1998 FY98: \$0 Total: \$13,900
Prin. Invest.: M STARK
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3278 UNIVERSITY OF MARYLAND - COLLEGE PARK **5304**
TARGET OF OPPORTUNITY OBSERVATIONS OF BLACK-HOLE CANDIDATES
 07/03/1996 - 01/14/1998 FY98: \$0 Total: \$22,971
Prin. Invest.: D SMITE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

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| NAG 5 3361 UNIVERSITY OF MARYLAND - COLLEGE PARK 5305 ISO DATA ANALYSIS IN PROGRAM FOR RESEARCH TO BE CONDUCTED AT THE UMD 08/28/1996 - 08/31/1999 FY98: \$95,000 Total: \$196,200 Prin. Invest.: D G CURRLA Tech. Officer: GSFC/D WEST CASE Category: 11 - ASTRONOMY | NAG 5 3562 UNIVERSITY OF MARYLAND - COLLEGE PARK 5313 VLA OBSERVATIONS OF YZ CANIS MINORIS IN SUPPORT OF HST/GHRS AND EUVE OBSERVATIONS 01/08/1997 - 01/14/1998 FY98: \$0 Total: \$14,000 Prin. Invest.: M KUNDU Tech. Officer: GSFC/B E WOODGATE CASE Category: 11 - ASTRONOMY |
| NAG 5 3393 UNIVERSITY OF MARYLAND - COLLEGE PARK 5306 THE OBSCURING MATERIAL IN LINE OF SIGHT TO SEYFERT 1 NUCLEUS OF NGC 3281; THE RELATIONSHIP 09/06/1996 - 03/14/1999 FY98: \$0 Total: \$65,000 Prin. Invest.: A WILSON Tech. Officer: GSFC/N WHITE CASE Category: 11 - ASTRONOMY | NAG 5 3676 UNIVERSITY OF MARYLAND - COLLEGE PARK 5314 OSSE 511 KEY OBSERVATIONS AND MAPPING 01/08/1997 - 01/14/1999 FY98: \$18,300 Total: \$62,300 Prin. Invest.: M I EVENTHAL Tech. Officer: GSFC/N P NORRIS CASE Category: 11 - ASTRONOMY |
| NAG 5 3425 UNIVERSITY OF MARYLAND - COLLEGE PARK 5307 BEYOND HUMAN CONTROL 09/14/1996 - 09/30/1998 FY98: \$44,745 Total: \$94,541 Prin. Invest.: K L NORMAN, E D MURPHY Tech. Officer: GSFC/W F TRUSZKOWSKI CASE Category: 69 - PSYCHOLOGY, OTHER | NAG 5 3677 UNIVERSITY OF MARYLAND - COLLEGE PARK 5315 HARD X-RAYS FROM STELLAR FLARES AND THE SOLAR ANAL 01/04/1997 - 01/14/1998 FY98: \$0 Total: \$22,000 Prin. Invest.: S WHITE Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY |
| NAG 5 3454 UNIVERSITY OF MARYLAND - COLLEGE PARK 5308 TERRESTRIAL MONITORING AT HIGH SPATIAL RESOLUTION: THE ROLE OF LANDSAT-TYPE SENSORS IN MISSION 10/07/1996 - 10/31/1998 FY98: \$401,499 Total: \$835,075 Prin. Invest.: D GOWARD, NONE Tech. Officer: GSFC/D L WILLIAMS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 3678 UNIVERSITY OF MARYLAND - COLLEGE PARK 5316 TROPOSPHERIC CONVECTION AND STRATOSPHERE-TROPOSPHERE ON PHOTOCHEMISTRY, AEROSOLS, AND CLIMATE 01/04/1997 - 01/14/1999 FY98: \$280,000 Total: \$545,000 Prin. Invest.: K E PICKERING Tech. Officer: GSFC/M D HALL CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NAG 5 3455 UNIVERSITY OF MARYLAND - COLLEGE PARK 5309 ENHANCED ANTARCTIC RESEARCH WITH LANDSAT: ICE SHEET DYNAMICS, HISTORY, AND CARTOGRAPHY 10/07/1996 - 10/31/1998 FY98: \$61,382 Total: \$112,702 Prin. Invest.: M A FAHNSTOCK Tech. Officer: GSFC/D L WILLIAMS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 3739 UNIVERSITY OF MARYLAND - COLLEGE PARK 5317 CLIMATIC EFFECTS OF VOLCANIC ERUPTIONS 02/25/1997 - 01/31/1999 FY98: \$55,000 Total: \$110,000 Prin. Invest.: A R BOCK Tech. Officer: GSFC/K H BERGMAN CASE Category: 11 - ATMOSPHERIC SCIENCE |
| NAG 5 3496 UNIVERSITY OF MARYLAND - COLLEGE PARK 5310 JOINT SCIENTIFIC AND TECHNICAL COMMITTEE OF THE GL SYSTEM 01/24/1997 - 07/31/1999 FY98: \$146,806 Total: \$283,505 Prin. Invest.: J TOWNSHEND Tech. Officer: GSFC/R A SCHIFFER CASE Category: 31 - ATMOSPHERIC SCIENCE | NAG 5 3788 UNIVERSITY OF MARYLAND - COLLEGE PARK 5318 DIRECT MEASUREMENTS OF TROPOSPHERE OZONE FROM TOMS 03/15/1997 - 01/31/1998 FY98: \$0 Total: \$116,560 Prin. Invest.: R D HUDSON Tech. Officer: GSFC/J A KAYE CASE Category: 11 - ASTRONOMY |
| NAG 5 3532 UNIVERSITY OF MARYLAND - COLLEGE PARK 5311 DEVELOP OF A DEMONSTRATION MODEL LOW-COST, HIGH COMPUTE-BASED TELEMEDICINE SYSTEM APPLICABLE FOR SPACE AND 12/23/1996 - 11/30/1998 FY98: \$0 Total: \$93,106 Prin. Invest.: D S LIU Tech. Officer: GSFC/C DOARN CASE Category: 56 - MEDICAL | NAG 5 3832 UNIVERSITY OF MARYLAND - COLLEGE PARK 5319 THE NATURE OF THE X-RAY SOURCE IN THE PRECATAclysm 02/10/1997 - 02/14/1999 FY98: \$0 Total: \$26,000 Prin. Invest.: S M WHITE Tech. Officer: GSFC/N WHITE CASE Category: 11 - ASTRONOMY |
| NAG 5 3548 UNIVERSITY OF MARYLAND - COLLEGE PARK 5312 RADAR BACKSCATTER MODELING AND ALGORITHM DEVELOPMENT FOR FORRESTER PARAMETERS RETRIEVAL FROM SAR DATA 11/27/1996 - 11/30/1999 FY98: \$100,481 Total: \$196,725 Prin. Invest.: S LIANG, G SUN Tech. Officer: GSFC/J RANSON CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 3836 UNIVERSITY OF MARYLAND - COLLEGE PARK 5320 LOW LUMINOSITY ACCRETION ONTO COMPACT OBJECTS 02/11/1997 - 02/14/1999 FY98: \$70,000 Total: \$140,000 Prin. Invest.: J L WANG Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY |

NASA'S UNIVERSITY PROGRAM

NAG 5 3840 UNIVERSITY OF MARYLAND - COLLEGE PARK **5321**
MAGNETOHYDRODYNAMIC MODELS OF THE COLD INTERSTELLA
 02/14/1997 - 02/14/1999 FY98: \$66,800 Total: \$149,100
 Prin. Invest.: E C OSTRIKER
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3846 UNIVERSITY OF MARYLAND - COLLEGE PARK **5322**
REMOTE SENSING OF SAHEL PRIMARY PRODUCTION
 01/24/1997 - 09/30/1997 FY98: \$0 Total: \$220,000
 Prin. Invest.: D D PRINCE
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3850 UNIVERSITY OF MARYLAND - COLLEGE PARK **5323**
GLOBAL MAPPING OF VEGETATIVE LAND COVER
 01/24/1997 - 12/31/1997 FY98: \$0 Total: \$193,221
 Prin. Invest.: D TOWNSHEND
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3851 UNIVERSITY OF MARYLAND - COLLEGE PARK **5324**
BIOSPHERIC MONITORING FROM SPACE: ENVIRONMENTAL C PRODUC-
TION
 01/24/1997 - 08/31/1997 FY98: \$0 Total: \$134,377
 Prin. Invest.: S N GOWARD
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3860 UNIVERSITY OF MARYLAND - COLLEGE PARK **5325**
ASSESSING THE IMPACT OF EXPANDING URBAN LAND USE & USING
REMOTE SENSING DATA& PHYSICALLY-BASED SOIL
 12/30/1996 - 08/14/1997 FY98: -\$71,484 Total: \$70,365
 Prin. Invest.: W T LAWRENCE
 Tech. Officer: GSFC/A J TUYAHOV
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3960 UNIVERSITY OF MARYLAND - COLLEGE PARK **5326**
THE EFFECT OF VARIATIONS IN PACIFIC FRESH-WATER AN INDIAN OCEAN
 02/18/1997 - 01/31/1999 FY98: \$116,092 Total: \$224,552
 Prin. Invest.: R WAJSOWICZ
 Tech. Officer: GSFC/N MAYNARD
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 4006 UNIVERSITY OF MARYLAND - COLLEGE PARK **5327**
A STUDY OF THE SURFACE PROPERTIES & ICE DYNAMICS O SHEET
USING SAR
 03/06/1997 - 12/31/1998 FY98: \$0 Total: \$77,543
 Prin. Invest.: D FAHNESTOCK
 Tech. Officer: GSFC/R H THOMAS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4026 UNIVERSITY OF MARYLAND - COLLEGE PARK **5328**
ELECTRON TIME-OF-FLIGHT KINEMATICS IN SOLAR FLARES
 03/13/1997 - 02/28/1999 FY98: \$61,000 Total: \$120,000
 Prin. Invest.: D J ASCHWANDEN
 Tech. Officer: GSFC/W J WAGNER
 CASE Category: 13 - PHYSICS

NAG 5 4056 UNIVERSITY OF MARYLAND - COLLEGE PARK **5329**
SATELLITE BASED IDENTIFICATION OF LINKED VEGETATIO SURFACE
TEMPERATURE ANOMALY AREAS
 03/11/1997 - 03/14/1999 FY98: \$0 Total: \$159,150
 Prin. Invest.: J R TOWNSHEND
 Tech. Officer: GSFC/C J TUCKER
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4080 UNIVERSITY OF MARYLAND - COLLEGE PARK **5330**
OBSERVATIONS OF COMETS AND ASTEROIDS
 04/11/1997 - 11/30/1998 FY98: \$100,000 Total: \$200,000
 Prin. Invest.: D F A'HEARN
 Tech. Officer: GSFC/J BERGSTRALH
 CASE Category: 11 - ASTRONOMY

NAG 5 4092 UNIVERSITY OF MARYLAND - COLLEGE PARK **5331**
A SPECTROSCOPIC INVESTIGATION INTO THE "MISSING UV
"
 03/10/1997 - 12/31/1998 FY98: \$69,046 Total: \$135,046
 Prin. Invest.: D C BALACHANDRAN
 Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 4096 UNIVERSITY OF MARYLAND - COLLEGE PARK **5332**
CRYOGENIC SAPPHIRE MONOCRYSTALLINE OPTICAL CAVITY N AND PRE-
CISE TIME MEASUREMENTS
 03/10/1997 - 03/14/1998 FY98: \$0 Total: \$30,000
 Prin. Invest.: P P RICHARD
 Tech. Officer: GSFC/H HASAN
 CASE Category: 11 - ASTRONOMY

NAG 5 4106 UNIVERSITY OF MARYLAND - COLLEGE PARK **5333**
OSSE OBSERVATIONS OF HARD X-RAY BRIGHT SEYFERT 2 G
 03/24/1997 - 03/31/1998 FY98: \$0 Total: \$7,268
 Prin. Invest.: G M MADEJSKI
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 4152 UNIVERSITY OF MARYLAND - COLLEGE PARK **5334**
CROSS CORRELATION OF SOLAR WIND PLASMA PARAMETERS SOHO
AND SWE ON WIND
 03/25/1997 - 03/31/1999 FY98: \$67,387 Total: \$147,530
 Prin. Invest.: D A COPLAN
 Tech. Officer: GSFC/J GREBOWSKY
 CASE Category: 13 - PHYSICS

NAG 5 4186 UNIVERSITY OF MARYLAND - COLLEGE PARK **5335**
A STUDY WITH ALTIMETRY OF LOW FREQUENCY VARIABILT KUROSHIO
EXTENSION
 04/01/1997 - 03/31/2000 FY98: \$63,012 Total: \$125,976
 Prin. Invest.: L WANG
 Tech. Officer: GSFC/N MAYNARD
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 4201 UNIVERSITY OF MARYLAND - COLLEGE PARK **5336**
X-RAY EMISSION FROM COMETS
 03/17/1997 - 03/31/1999 FY98: \$40,000 Total: \$80,000
 Prin. Invest.: D F A'HEARN
 Tech. Officer: GSFC/W HUEBNER
 CASE Category: 11 - ASTRONOMY

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| NAG 5 4255 UNIVERSITY OF MARYLAND - COLLEGE PARK 5337 VARIABLE ICE-SHEET DISCHARGE & COASTAL CHANGE IN W 04/04/1997 - 12/31/1998 FY98: \$14,995 Total: \$81,290 Prin. Invest.: M FAHNESTOCK Tech. Officer: GSFC/R H THOMAS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 4638 UNIVERSITY OF MARYLAND - COLLEGE PARK 5345 DEVELOPMENT OF ION AND ELECTRON PLASMA INSTRUMENT W DESIGN CONCEPTS FOR THE MINIMUM SOLAR MISSION 05/30/1997 - 15/31/1999 FY98: \$0 Total: \$18,951 Prin. Invest.: M A COPLAN Tech. Officer: GSFC/E C SITTLER CASE Category: 13 - PHYSICS |
| NAG 5 4278 UNIVERSITY OF MARYLAND - COLLEGE PARK 5338 GLOBAL MHD SIMULATION OF THE SOLAR NEBULA 04/01/1997 - 03/31/1999 FY98: \$29,050 Total: \$78,836 Prin. Invest.: P M STONE Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY | NAG 5 4662 UNIVERSITY OF MARYLAND - COLLEGE PARK 5346 DATA ASSIMILATIVE ANALYSIS OF THE GGS DATA SET USI 06/05/1997 - 05/31/1999 FY98: \$30,070 Total: \$59,219 Prin. Invest.: C E LOPEZ Tech. Officer: GSFC/J GREBOWSKY CASE Category: 13 - PHYSICS |
| NAG 5 4313 UNIVERSITY OF MARYLAND - COLLEGE PARK 5339 A SPACE PHYSICS ANALYSIS AND PLANNING TOOL 05/09/1997 - 06/30/1999 FY98: \$103,000 Total: \$207,500 Prin. Invest.: D C GOODRICH Tech. Officer: GSFC/J BREDEKAMP CASE Category: 22 - COMPUTER SCIENCE | NAG 5 4740 UNIVERSITY OF MARYLAND - COLLEGE PARK 5347 THEORETICAL MODELS OF COMETARY OBSERVATIONS 06/04/1997 - 05/31/1999 FY98: \$0 Total: \$49,737 Prin. Invest.: D F A'HEARN Tech. Officer: GSFC/W HUEBNER CASE Category: 11 - ASTRONOMY |
| NAG 5 4352 UNIVERSITY OF MARYLAND - COLLEGE PARK 5340 ADVANCED CALORIMETER FOR COMPOSITION OF ELEMENTS O (ACCESS) TO STUDY >10 TEVCOSMIC RAYS 04/14/1997 - 01/31/1999 FY98: \$0 Total: \$27,597 Prin. Invest.: D SEO Tech. Officer: GSFC/R HOWARD CASE Category: 13 - PHYSICS | NAG 5 4769 UNIVERSITY OF MARYLAND - COLLEGE PARK 5348 ISOTOPIC AND GEOCHEMICAL INVESTIGATIONS OF METEORI 06/09/1997 - 05/31/1999 FY98: \$0 Total: \$63,603 Prin. Invest.: D I WALKER Tech. Officer: GSFC/D NAVA CASE Category: 11 - ASTRONOMY |
| NAG 5 4363 UNIVERSITY OF MARYLAND - COLLEGE PARK 5341 INSTRUMENTATION UPGRADE FOR COMETARY OBSERVATIONS 05/30/1997 - 04/30/1999 FY98: \$0 Total: \$77,500 Prin. Invest.: D F A'HEARN Tech. Officer: GSFC/W HUEBNER CASE Category: 11 - ASTRONOMY | NAG 5 4809 UNIVERSITY OF MARYLAND - COLLEGE PARK 5349 ADVANCED AUTOMATION CONCEPTS IN SPACEFLIGHT DYNAMI NAVIGA- TION 07/30/1997 - 07/31/1999 FY98: \$40,000 Total: \$141,175 Prin. Invest.: D SCHMIDT Tech. Officer: GSFC/D WEIDOW CASE Category: 42 - ASTRONAUTICAL ENGR |
| NAG 5 4429 UNIVERSITY OF MARYLAND - COLLEGE PARK 5342 A LABORATORY AND OBSERVATIONAL STUDY OF THE CHEMIC PROTO- STELLAR NEBULAE 05/06/1997 - 03/31/1999 FY98: \$37,500 Total: \$82,070 Prin. Invest.: D G MUNDY Tech. Officer: GSFC/D NAVA CASE Category: 11 - ASTRONOMY | NAG 5 4811 UNIVERSITY OF MARYLAND - COLLEGE PARK 5350 DEFORESTRATION AND DEGRADATION IN SOUTHERN AND CEN 06/25/1997 - 07/31/1999 FY98: \$219,380 Total: \$506,880 Prin. Invest.: S F RINCE Tech. Officer: GSFC/A C JANETOS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 4487 UNIVERSITY OF MARYLAND - COLLEGE PARK 5343 CONTINUED MONITORING OF THE EMISSION FROM GRO J174 05/08/1997 - 04/30/1999 FY98: \$0 Total: \$17,282 Prin. Invest.: M STARK Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY | NAG 5 4861 UNIVERSITY OF MARYLAND - COLLEGE PARK 5351 CLIMATE CHANGE, EXTREME COASTAL WATER LEVEL EVENTS EROSION 06/20/1997 - 06/30/1999 FY98: \$0 Total: \$140,000 Prin. Invest.: B D JUGLAS Tech. Officer: GSFC/M BALTUCK CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NAG 5 4551 UNIVERSITY OF MARYLAND - COLLEGE PARK 5344 MULTI-LOOP MODELS OF ACTIVE REGIONS USING EUV, SXR 05/05/1997 - 04/30/1999 FY98: \$0 Total: \$55,260 Prin. Invest.: D J ASCHWANDEN Tech. Officer: GSFC/W J WAGNER CASE Category: 13 - PHYSICS | NAG 5 4954 UNIVERSITY OF MARYLAND - COLLEGE PARK 5352 ABUNDANCES OF ELEMENTS RELATIVE TO HYDROGEN IN THE 06/23/1997 - 06/30/1999 FY98: \$0 Total: \$57,994 Prin. Invest.: D M WHITE Tech. Officer: GSFC/W J WAGNER CASE Category: 13 - PHYSICS |

NAG 5 5056 UNIVERSITY OF MARYLAND – COLLEGE PARK **5353**
ANALYTIC AND MONTE CARLO STUDIES OF ENERGETIC PARTICLE TRANSPORT
 03/29/1996 – 12/31/1998 FY98: \$0 Total: \$60,000
Prin. Invest.: J A EARL
Tech. Officer: GSFC/H C NEEDLEMAN
CASE Category: 13 – PHYSICS

NAG 5 5061 UNIVERSITY OF MARYLAND – COLLEGE PARK **5354**
SEARCHING FOR ANTIMATTER AND COSMIC RAY STUDIES USING BESS
 05/09/1996 – 02/28/1999 FY98: \$98,700 Total: \$293,600
Prin. Invest.: E S SEO, NONE
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5062 UNIVERSITY OF MARYLAND – COLLEGE PARK **5355**
THE ADVANCED THIN IONIZATION CALORIMETER (ATIC) BALLOON EXPERIMENT
 03/29/1996 – 02/28/1999 FY98: \$446,836 Total: \$966,046
Prin. Invest.: E S SEO
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MARRITT
CASE Category: 13 – PHYSICS

NAG 5 5083 UNIVERSITY OF MARYLAND – COLLEGE PARK **5356**
PROTON MAGNETIC SPECTROMETER FOR CUSP MEASUREMENTS
 06/14/1996 – 03/31/1999 FY98: \$63,565 Total: \$221,265
Prin. Invest.: M A COPLAN
Tech. Officer: GSFC/L W CURKIN
CASE Category: 13 – PHYSICS

NAG 5 5139 UNIVERSITY OF MARYLAND – COLLEGE PARK **5357**
ABSORPTION AND SCATTERING MEASUREMENTS IN THE MIDDLE ATLANTIC BIGHT – UNDERSTANDING OCEAN COLOR
 04/25/1997 – 09/30/1997 FY98: \$0 Total: \$23,989
Prin. Invest.: A VODACEK
Tech. Officer: GSFC/F HOGE
CASE Category: 33 – OCEANOGRAPHY

NAG 5 5155 UNIVERSITY OF MARYLAND – COLLEGE PARK **5358**
OPTIMIZED CALORIMETER FOR ACCESS MEASUREMENTS OF Z-1-26 NUCLEI AND ELECTRONS
 03/26/1998 – 12/31/1998 FY98: \$97,000 Total: \$97,000
Prin. Invest.: E S SEO
Tech. Officer: GSFC/B A MERRITT/
CASE Category: 13 – PHYSICS

NAG 5 5161 UNIVERSITY OF MARYLAND – COLLEGE PARK **5359**
GLOBAL SOIL MOISTURE DATA SET FROM SATELLITE AND G FOR CLIMATIC STUDIES & EVAL. OF THE HYDROLOGICAL
 07/18/1997 – 07/14/1999 FY98: \$0 Total: \$100,000
Prin. Invest.: K VINNIKOV
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 5163 UNIVERSITY OF MARYLAND – COLLEGE PARK **5360**
TOPOGRAPHIC EFFECTS ON SOLAR RADIATION AND REMOTEL RADIANCES
 07/18/1997 – 02/28/1999 FY98: \$0 Total: \$63,757
Prin. Invest.: R DUBAYAH
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 5204 UNIVERSITY OF MARYLAND – COLLEGE PARK **5361**
COSMIC-RAY ORIGIN, ACCELERATION, AND PROPAGATION SELECTED UNDER THE PRESIDENTIAL EARLY CAREER AWARD
 06/24/1998 – 06/30/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: E S SEO
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5206 UNIVERSITY OF MARYLAND – COLLEGE PARK **5362**
COSMIC RAY ENERGETICS AND MASS (CREAM) COSMIC RAY ENERGETICS AND MASS (CREAM)
 09/22/1998 – 11/30/1999 FY98: \$244,054 Total: \$244,054
Prin. Invest.: E S SEO
Tech. Officer: WFF/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 6004 UNIVERSITY OF MARYLAND – COLLEGE PARK **5363**
CHARACTERIZING LAND-COVER HETEROGENEITY AND LAND-C SENSOR SATELLITE DATA
 08/28/1997 – 12/14/1999 FY98: \$235,800 Total: \$501,134
Prin. Invest.: D DEFRIES
Tech. Officer: HQ/A JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6044 UNIVERSITY OF MARYLAND – COLLEGE PARK **5364**
WASP: A WIDEBAND AUTOCORRELATOR FOR HETERODYNE SP
 07/24/1997 – 06/30/1999 FY98: \$18,367 Total: \$73,244
Prin. Invest.: D HARRIS
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 – ASTRONOMY

NAG 5 6059 UNIVERSITY OF MARYLAND – COLLEGE PARK **5365**
COLLISIONLESS SHOCK PHENOMENA IN THE SOLAR ATMOSPHERIC RADIO EMISSION
 07/29/1997 – 06/30/1999 FY98: \$15,495 Total: \$60,181
Prin. Invest.: D THEJAPPA
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 6069 UNIVERSITY OF MARYLAND – COLLEGE PARK **5366**
BOREAL ECOSYSTEM-ATMOSPHERE INFORMATION SYSTEMS DEVELOPMENT
 07/28/1997 – 06/30/1999 FY98: \$8,000 Total: \$92,479
Prin. Invest.: K F HUEMMERICH
Tech. Officer: GSFC/F G HALL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6094 UNIVERSITY OF MARYLAND – COLLEGE PARK **5367**
COMPILATION OF GLOBAL TERRESTRIAL PRIMARY PRODUCTIVITY
 09/05/1997 – 08/31/1998 FY98: \$0 Total: \$113,538
Prin. Invest.: D PRINCE
Tech. Officer: HQ/D WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6141 UNIVERSITY OF MARYLAND – COLLEGE PARK **5368**
SPECTROSCOPY OF X-RAY EMISSION FROM COMETS P/ENCKE
 08/01/1997 – 07/31/1998 FY98: \$0 Total: \$16,200
Prin. Invest.: C LISSE
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 6142 UNIVERSITY OF MARYLAND - COLLEGE PARK **5369**
HARD X-RAY SOURCES IN ACTIVE GALACTIC NUCLEI WITH
 08/01/1997 - 07/31/1999 FY98: \$0 Total: \$19,000
Prin. Invest.: A WILSON
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6152 UNIVERSITY OF MARYLAND - COLLEGE PARK **5370**
TO SUPPORT BASIC RESEARCH IN THE DEVELOPMENT OF A NUMERICAL
SIMULATION OF THE MHD EQUATIONS IN SPHE
 09/08/1997 - 09/14/1999 FY98: \$88,484 Total: \$233,666
Prin. Invest.: A DEANE
Tech. Officer: GSFC/M L GOLDSTEIN
CASE Category: 13 - PHYSICS

NAG 5 6155 UNIVERSITY OF MARYLAND - COLLEGE PARK **5371**
SEARCH FOR X-RAYS FROM COMETS P/ENCKE AND C/HALE-B
 09/11/1997 - 08/31/1998 FY98: \$0 Total: \$7,400
Prin. Invest.: C LISSE
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6190 UNIVERSITY OF MARYLAND - COLLEGE PARK **5372**
MAGNETIC RECONNECTION AND ASSOCIATED WAVE AND PARTICULON-LESS PLASMA
 08/13/1997 - 06/30/1999 FY98: \$23,333 Total: \$93,333
Prin. Invest.: D F DRAKE
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6234 UNIVERSITY OF MARYLAND - COLLEGE PARK **5373**
THE INTERACTION OF LUMINOUS BLUE VARIABLES WITH THE
 08/19/1997 - 08/14/1999 FY98: \$0 Total: \$3,900
Prin. Invest.: S M WHITE
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6256 UNIVERSITY OF MARYLAND - COLLEGE PARK **5374**
COMPARISON BETWEEN GLOBAL MHD SIMULATION AND MULTI-OBSERVATIONS
 08/27/1997 - 08/31/1999 FY98: \$30,000 Total: \$60,000
Prin. Invest.: D E LOPEZ
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6257 UNIVERSITY OF MARYLAND - COLLEGE PARK **5375**
RESEARCH IN SOLAR RADIO ASTRONOMY AT SHORT WAVELENGTHS
 08/27/1997 - 08/31/1999 FY98: \$5,833 Total: \$119,833
Prin. Invest.: D KUNDU
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 6282 UNIVERSITY OF MARYLAND - COLLEGE PARK **5376**
DETECTING THE LOCATION, SPATIAL EXTENT, RATES AND TROPICAL
DEFORESTATION
 09/22/1997 - 08/31/1999 FY98: \$0 Total: \$378,343
Prin. Invest.: J TOWNSHEND
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6318 UNIVERSITY OF MARYLAND - COLLEGE PARK **5377**
GLOBAL HELIOSPHERIC STRUCTURE & DYNAMICS & INVEST. OF ADV.
DATA STORAGE & HANDLING TECHNIQUES FOR SI
 10/02/1997 - 09/30/1998 FY98: \$75,000 Total: \$75,000
Prin. Invest.: C J GOODRICH
Tech. Officer: GSFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 5 6319 UNIVERSITY OF MARYLAND - COLLEGE PARK **5378**
COMBINING REMOTE SENSING AND HYDROLOGICAL MODELING ENERGY
BALANCE STUDIES
 09/11/1997 - 09/30/1999 FY98: \$241,762 Total: \$453,762
Prin. Invest.: R HUBBARD
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6364 UNIVERSITY OF MARYLAND - COLLEGE PARK **5379**
A VERSION 2 AVHRR MULTIREOLUTION LAND PATHFINDER
 09/17/1997 - 06/30/1999 FY98: \$250,000 Total: \$485,006
Prin. Invest.: J TOWNSHEND
Tech. Officer: GSFC/T JANEOTS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6421 UNIVERSITY OF MARYLAND - COLLEGE PARK **5380**
GLOBAL VEGETATION DYNAMICS
 09/26/1997 - 08/31/1999 FY98: \$222,007 Total: \$472,900
Prin. Invest.: S C PRINCE
Tech. Officer: GSFC/S PRINCE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6426 UNIVERSITY OF MARYLAND - COLLEGE PARK **5381**
ENERGETIC PARTICLE PROCESSES IN THE HELIOSPHERE & INTERSTELLAR SPACE
 10/07/1997 - 04/30/1999 FY98: \$145,000 Total: \$145,000
Prin. Invest.: D LEROUX
Tech. Officer: GSFC/V JONES
CASE Category: 11 - ASTRONOMY

NAG 5 6443 UNIVERSITY OF MARYLAND - COLLEGE PARK **5382**
RESEARCH IN SPACE OPERATIONS AND TELEROBOTICS
 11/12/1997 - 04/30/1999 FY98: \$750,000 Total: \$750,000
Prin. Invest.: D A KIN
Tech. Officer: GSFC/D LAVERY
CASE Category: 11 - ASTRONOMY

NAG 5 6459 UNIVERSITY OF MARYLAND - COLLEGE PARK **5383**
VALIDATING MODIS/MISR LAND SURFACE REFLECTING AND ALBEDO
PRODUCTS
 10/14/1997 - 09/30/1999 FY98: \$184,915 Total: \$184,915
Prin. Invest.: S L ANG
Tech. Officer: GSFC/D STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6464 UNIVERSITY OF MARYLAND - COLLEGE PARK **5384**
EOS VALIDATION ACTIVITY IN A DESERT ENCROACHMENT ZONE OF SUB-
SAHEL AFRICA
 10/14/1997 - 09/30/1999 FY98: \$285,451 Total: \$285,451
Prin. Invest.: R P NIKER
Tech. Officer: GSFC/D STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6483 UNIVERSITY OF MARYLAND - COLLEGE PARK **5385**
EVALUATION OF OPERATIONAL LONGWAVE RADIATION BUDGET PARAMETERS USING THE GOES SOUNDERS
 11/18/1997 - 09/30/2000 FY98: \$410,820 Total: \$410,820
Prin. Invest.: P ELLINGSON
Tech. Officer: GSFC/J DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6509 UNIVERSITY OF MARYLAND - COLLEGE PARK **5386**
GEOMORPHIC ANALYSIS OF THE TERRAINS ON BOTH EARTH & MARSPO.9/97-9/98
 10/30/1997 - 09/30/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: R DUBAYAH
Tech. Officer: GSFC/J GARVIN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6526 UNIVERSITY OF MARYLAND - COLLEGE PARK **5387**
MECHANOSENSITIVE ION CHANNELS IN BACTERIA
 04/02/1998 - 02/28/1999 FY98: \$170,868 Total: \$170,868
Prin. Invest.: S I SUKHAREV
Tech. Officer: GSFC/L P CHAMBERS
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6547 UNIVERSITY OF MARYLAND - COLLEGE PARK **5388**
ORIGIN AND IMPACT OF NUCLEAR ACTIVITY IN GALAXIES (LISA)
 10/29/1997 - 10/31/1998 FY98: \$23,157 Total: \$23,157
Prin. Invest.: S VILLEUX
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6616 UNIVERSITY OF MARYLAND - COLLEGE PARK **5389**
NEW METHODS FOR MEASURING ICE MOTION: THE FIELD COMPONENT REQUIRED FOR SARINTERFEROMETRY
 11/18/1997 - 06/30/1999 FY98: \$98,551 Total: \$98,551
Prin. Invest.: M FAHNESTOCK
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6617 UNIVERSITY OF MARYLAND - COLLEGE PARK **5390**
ADVANCED CENTER FOR GLOBAL REMOTE SENSING STUDIES
 11/18/1997 - 11/14/1998 FY98: \$430,000 Total: \$430,000
Prin. Invest.: D JAJA
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6630 UNIVERSITY OF MARYLAND - COLLEGE PARK **5391**
COREGISTRATION, THRESHOLDING, AND STOCHASTIC METHODS OF VALIDATION OF RAINFALL ESTIMATES FROM SPA
 12/05/1997 - 01/14/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: B KEDEM, NONE
Tech. Officer: GSFC/D A SHORT
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6667 UNIVERSITY OF MARYLAND - COLLEGE PARK **5392**
EVALUATION OF ACCURACIES IN GEOPHYSICAL PARAMETERS DERIVED FROM PATHFINDER DATA
 12/10/1997 - 12/31/1999 FY98: \$240,991 Total: \$240,991
Prin. Invest.: P PINKER
Tech. Officer: GSFC/J DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6682 UNIVERSITY OF MARYLAND - COLLEGE PARK **5393**
INTERANNUAL VARIABILITY, TRENDS, AND TRACER CORRELATIONS IN THE UARS DATA SET
 12/08/1997 - 11/30/1998 FY98: \$50,752 Total: \$50,752
Prin. Invest.: D B CONSIDINE
Tech. Officer: GSFC/A DOUGLASS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6699 UNIVERSITY OF MARYLAND - COLLEGE PARK **5394**
ENHANCED METADATA EXTRACTION FOR NASA'S REGIONAL VALIDATION CENTERSYSTEM.
 12/12/1997 - 03/31/1999 FY98: \$97,770 Total: \$97,770
Prin. Invest.: D NETANYAHU
Tech. Officer: GSFC/R CROMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 6750 UNIVERSITY OF MARYLAND - COLLEGE PARK **5395**
ANALYSIS TOOLS FOR IR LINE AND CONTINUUM OBSERVATIONS; COBE AND THE STRUCTURE OF THE GALACTIC I
 01/12/1998 - 01/14/1999 FY98: \$69,447 Total: \$69,447
Prin. Invest.: L MUNDY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6958 UNIVERSITY OF MARYLAND - COLLEGE PARK **5396**
RXTE PROPOSAL - X-RAY FLARES FROM THE YOUNG ACTIVE K DWARF AB DORADUS
 02/06/1998 - 01/31/1999 FY98: \$26,442 Total: \$26,442
Prin. Invest.: S WHITE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 6970 UNIVERSITY OF MARYLAND - COLLEGE PARK **5397**
MACHINE LEARNING TO IMPROVE LAND COVER CLASSIFICATIONS FROM MULTISENSOR AND MULTITEMPORAL DATA
 03/12/1998 - 02/28/2001 FY98: \$96,378 Total: \$96,378
Prin. Invest.: R E DEFRIES
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7058 UNIVERSITY OF MARYLAND - COLLEGE PARK **5398**
ICE FLOW IN THE NORTHEAST GREENLAND ICE STREAM: MEASUREMENT AND ANALYSIS
 03/04/1998 - 02/28/2001 FY98: \$50,353 Total: \$50,353
Prin. Invest.: M FAHNESTOCK
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7069 UNIVERSITY OF MARYLAND - COLLEGE PARK **5399**
TRANSPORT OF ENERGETIC PARTICLES IN THE GALAXY - A TP
 03/02/1998 - 02/28/1999 FY98: \$66,816 Total: \$66,816
Prin. Invest.: A LUKASIAK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7111 UNIVERSITY OF MARYLAND - COLLEGE PARK **5400**
SOLAR WIND AND SUPRATHERMAL ION COMPOSITION ON WIND
 03/25/1998 - 03/14/1999 FY98: \$450,000 Total: \$450,000
Prin. Invest.: G GLOECKLER
Tech. Officer: GSFC/K OBILVIE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7126 UNIVERSITY OF MARYLAND - COLLEGE PARK **5401**
DYNAMIC QUERIES INTERFACES FOR THE EOSDIS INFORMATION SYSTEM
 02/26/1998 - 02/28/1999 FY98: \$145,000 Total: \$145,000
 Prin. Invest.: B SHNEIDERMAN
 Tech. Officer: GSFC/C ROUFF
 CASE Category: 22 - COMPUTER SCIENCE

NAG 5 7141 UNIVERSITY OF MARYLAND - COLLEGE PARK **5402**
**PIONEER 10/11 AND ULYSSES STUDY OF ENERGETIC PARTICLES IN THE-
 HELIOSPHERE**
 03/12/1998 - 02/28/2001 FY98: \$93,333 Total: \$93,333
 Prin. Invest.: F B McDONALD Prin. Invest.: NONE
 Tech. Officer: GSFC/J LING
 CASE Category: 11 - ASTRONOMY

NAG 5 7145 UNIVERSITY OF MARYLAND - COLLEGE PARK **5403**
EMISSION PROCESSES ASSOCIATED WITH SOLAR TYPE III RADIO BURSTS
 03/23/1998 - 04/14/2001 FY98: \$28,718 Total: \$28,718
 Prin. Invest.: T GOLLA
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 7180 UNIVERSITY OF MARYLAND - COLLEGE PARK **5404**
MEV-ENERGY ELECTRONS IN SOLAR FLARES
 03/31/1998 - 03/31/1999 FY98: \$13,700 Total: \$13,700
 Prin. Invest.: M R KUNDU
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 7228 UNIVERSITY OF MARYLAND - COLLEGE PARK **5405**
**MO & DA PHASE FOR THE SUPRATHERMAL THROUGH ENERGETIC PARTICLE
 DETECTOR (STEP) SUBSYSTEM OF THE EPA**
 04/24/1998 - 04/14/1999 FY98: \$220,000 Total: \$220,000
 Prin. Invest.: G MASON, NONE
 Tech. Officer: GSFC/T VONROSENGE
 CASE Category: 13 - PHYSICS

NAG 5 7232 UNIVERSITY OF MARYLAND - COLLEGE PARK **5406**
CORONAL HEATING AND TEMPERATURE DISTRIBUTIONS
 04/08/1998 - 04/30/1999 FY98: \$34,126 Total: \$34,126
 Prin. Invest.: S M WHITE
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 7233 UNIVERSITY OF MARYLAND - COLLEGE PARK **5407**
**3-DIMENSIONAL ANALYSIS OF ACTIVE REGION LOOPS AND TESTS OF
 CORONAL HEATING MODELS**
 04/08/1998 - 04/30/1999 FY98: \$57,192 Total: \$57,192
 Prin. Invest.: M J ASCHWANDEN
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 7240 UNIVERSITY OF MARYLAND - COLLEGE PARK **5408**
**OSSE OBSERVATIONS AND MAPPING OF 511 KEV POSITRON ANNIHILA-
 TION RADIATION**
 04/16/1998 - 04/14/1999 FY98: \$6,300 Total: \$6,300
 Prin. Invest.: M LEVENTHAL
 Tech. Officer: GSFC/J P NORRIS
 CASE Category: 11 - ASTRONOMY

NAG 5 7263 UNIVERSITY OF MARYLAND - COLLEGE PARK **5409**
**VERTICAL TRANSPORT PROCESSES IN THE SASS/GMI CHEMICAL
 TRANSPORT MODEL: DEVELOPMENT, EVALUATION, AND**
 04/29/1998 - 04/30/1999 FY98: \$40,029 Total: \$40,029
 Prin. Invest.: K P CKERING
 Tech. Officer: GSFC/R W STEWART
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7345 UNIVERSITY OF MARYLAND - COLLEGE PARK **5410**
**XTE PROPOSAL (30004) - X-RAY FLARES FROM THE ACTIVE BINARY II
 PEG**
 06/01/1998 - 05/31/1999 FY98: \$10,076 Total: \$10,076
 Prin. Invest.: S M WHITE
 Tech. Officer: GSFC/J SWANK
 CASE Category: 11 - ASTRONOMY

NAG 5 7370 UNIVERSITY OF MARYLAND - COLLEGE PARK **5411**
TWO UNSOLVED PROBLEMS IN SOLAR PHYSICS
 05/06/1998 - 04/30/1999 FY98: \$41,922 Total: \$41,922
 Prin. Invest.: M K JINDU
 Tech. Officer: GSFC/W WAGNER
 CASE Category: 11 - ASTRONOMY

NAG 5 7392 UNIVERSITY OF MARYLAND - COLLEGE PARK **5412**
**EUV SCANNED PHOTOMETRIC OBSERVATIONS OF THE X-RAY/EUV
 EMISSION FROM COMET P/ENCKE**
 05/12/1998 - 05/14/1999 FY98: \$11,520 Total: \$11,520
 Prin. Invest.: C M JISSE
 Tech. Officer: GSFC/R J OLIVERSEN
 CASE Category: 11 - ASTRONOMY

NAG 5 7419 UNIVERSITY OF MARYLAND - COLLEGE PARK **5413**
**SIMULATION OF RADIOACTIVE TRACERS TO EVALUATE TRANSPORT AND
 SCAVENGING IN THE GMI CORE MODEL**
 06/29/1998 - 01/31/1999 FY98: \$52,145 Total: \$52,145
 Prin. Invest.: D CC NSIDINE
 Tech. Officer: GSFC/R W STEWART
 CASE Category: 11 - ATMOSPHERIC SCIENCE

NAG 5 7425 UNIVERSITY OF MARYLAND - COLLEGE PARK **5414**
FUSION OF AVHRR AND SEAWIFS DATA
 05/26/1998 - 04/30/1999 FY98: \$82,659 Total: \$82,659
 Prin. Invest.: S D F RINCE
 Tech. Officer: GSFC/J TUCKER
 CASE Category: 19 - ENVIRONMENTAL SCI, OTHER

NAG 5 7536 UNIVERSITY OF MARYLAND - COLLEGE PARK **5415**
**BOREAL ECOSYSTEM-ATMOSPHERE INFORMATION SYSTEMS DESIGN
 AND OPERATION**
 06/18/1998 - 06/30/1999 FY98: \$89,926 Total: \$89,926
 Prin. Invest.: K HUMMERICK
 Tech. Officer: GSFC/J F HALL
 CASE Category: 33 - ENVIRONMENTAL SCI, OTHER

NAG 5 7566 UNIVERSITY OF MARYLAND - COLLEGE PARK **5416**
"NUMERICAL SIMULATION OF HURRICANE FRAN (1996) USING MM5"
 07/09/1998 - 09/30/1998 FY98: \$0 Total: \$0
 Prin. Invest.: D ZHANG
 Tech. Officer: GSFC/R F ADLER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7567 UNIVERSITY OF MARYLAND - COLLEGE PARK **5417**
INTERACTION OF LAND SURFACE COVER/CHARACTERISTICS AND SUR-
FACE HYDROCLIMATOLOGY AT SEASONAL/INTERANNU
 07/09/1998 - 07/31/2001 FY98: \$320,000 Total: \$320,000
Prin. Invest.: Y XUE
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7587 UNIVERSITY OF MARYLAND - COLLEGE PARK **5418**
TERRESTRIAL ENVIRONMENTAL VARIABLES DERIVED FROM E OS PLAT-
FORM
 06/29/1998 - 01/31/1999 FY98: \$74,469 Total: \$74,469
Prin. Invest.: S N GOWARD
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7628 UNIVERSITY OF MARYLAND - COLLEGE PARK **5419**
LEARNING CONTROLLERS FOR ENHANCED AUTONOMY OF SPAC E
ROBOTS
 08/24/1998 - 04/30/1999 FY98: \$64,930 Total: \$64,930
Prin. Invest.: D SANNER
Tech. Officer: HQ/D LAVERY
CASE Category: 11 - ASTRONOMY

NAG 5 7634 UNIVERSITY OF MARYLAND - COLLEGE PARK **5420**
ISOTOPIC AND GEOCHEMICAL INVESTIGATIONS OF METEORI TES
 09/10/1998 - 07/31/2001 FY98: \$17,500 Total: \$17,500
Prin. Invest.: R J WALKER
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7678 UNIVERSITY OF MARYLAND - COLLEGE PARK **5421**
MISSION OPERATIONS AND DATA ANALYSIS OF THE CELIAS EXPERIMEN-
TION SOHO PRIOR GRANT 2754
 09/17/1998 - 10/31/1999 FY98: \$400,000 Total: \$400,000
Prin. Invest.: F I PAVICH
Tech. Officer: GSFC/J GURMAN
CASE Category: 19 - PHYSICALSCIENCE, OTHER

NAG 8 1027 UNIVERSITY OF MARYLAND - COLLEGE PARK **5422**
RADIO JET STUDY
 01/27/1994 - 02/19/1999 FY98: \$130,000 Total: \$415,000
Prin. Invest.: A S WILSON
Tech. Officer: MSFC/M E ROSENTHAL
CASE Category: 11 - ASTRONOMY

NAG 8 1440 UNIVERSITY OF MARYLAND - COLLEGE PARK **5423**
SEARCH FOR SPIN-MASS INTERACTION WITH A SUPER- CONDUCTING
DIFFERENTIAL ANGULAR ACCELEROMETER
 02/02/1998 - 12/31/2002 FY98: \$91,000 Total: \$91,000
Prin. Invest.: H J PAIK, M V MOODY
Tech. Officer: MSFC/J W POE
CASE Category: 13 - PHYSICS

NAGW 2062 UNIVERSITY OF MARYLAND - COLLEGE PARK **5424**
RESEARCH IN CHARGED PARTICLE TRANSPORT THEORY
 05/05/1990 - 03/31/1998 FY98: \$0 Total: \$180,000
Prin. Invest.: J A EARL
Tech. Officer: HQ/W V JONES, HQ/J C LING
CASE Category: 13 - PHYSICS

NAGW 2202 UNIVERSITY OF MARYLAND - COLLEGE PARK **5425**
HUMAN RESOURCES NEEDS FOR OCEANIC REMOTE SENSING: A PRO-
POSAL TO TRAIN FUTURE SCIENTISTS
 07/26/1990 - 03/31/1997 FY98: \$0 Total: \$373,677
Prin. Invest.: C F D'ELIA
Tech. Officer: HQ/M LEWIS
CASE Category: 33 - OCEANOGRAPHY

NAGW 2245 UNIVERSITY OF MARYLAND - COLLEGE PARK **5426**
TELEROBOTICS SPACE OPERATIONS RESEARCH
 10/01/1990 - 07/30/1998 FY98: \$0 Total: \$5,731,832
Prin. Invest.: D AKIN
Tech. Officer: HQ/L HOLCOMB, HQ/D LAVERY
CASE Category: 42 - ASTRONAUTICAL ENGR

NAGW 2504 UNIVERSITY OF MARYLAND - COLLEGE PARK **5427**
STUDY OF ENERGETIC PARTICLE PROCESSES IN THE HELIO SPHERE
 07/15/1991 - 09/30/1998 FY98: \$0 Total: \$590,000
Prin. Invest.: F B McDONALD
Tech. Officer: HQ/W V JONES, HQ/J C LING
CASE Category: 13 - PHYSICS

NAGW 3066 UNIVERSITY OF MARYLAND - COLLEGE PARK **5428**
A LABORATORY OBSERVATIONAL STUDY OF THE CHEMICAL E VOLUTION
OF PROTOSTELLAR NEBULAE
 04/28/1992 - 12/31/1996 FY98: \$0 Total: \$150,000
Prin. Invest.: L MUNDY
Tech. Officer: HQ/J A NUTH, III
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3193 UNIVERSITY OF MARYLAND - COLLEGE PARK **5429**
ABSORBED PH OTOSYNTHETICALLY ACTIVE RADIATION & SURFACE
HEMIS
 09/24/1992 - 06/30/1997 FY98: \$0 Total: \$100,781
Prin. Invest.: C L WALTHALL, J R IRONS, R HALTHORE
Tech. Officer: HQ/D E WICKLAND, HQ/R E MURPHY
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3235 UNIVERSITY OF MARYLAND - COLLEGE PARK **5430**
DETECTING THE LOCATION, SPATIAL EXTENT, RATES AND IMPACTS
 10/26/1992 - 10/31/1997 FY98: \$0 Total: \$2,217,069
Prin. Invest.: J TOWNSHEND
Tech. Officer: HQ/M E MAIDEN, HQ/D M BUTLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3596 UNIVERSITY OF MARYLAND - COLLEGE PARK **5431**
DYNAMICAL MODELING AND PREDICTION OF SUBSTORMS
 06/11/1993 - 07/31/1997 FY98: \$0 Total: \$243,600
Prin. Invest.: A SHARMA
Tech. Officer: HQ/E C WHIPPLE, HQ/G L WITHBROE
CASE Category: 13 - PHYSICS

NAGW 3625 UNIVERSITY OF MARYLAND - COLLEGE PARK **5432**
RE-OS ISOTOPE INVESTIGATION OF METEORITES
 06/03/1993 - 01/31/1997 FY98: \$0 Total: \$257,759
Prin. Invest.: R WALKER
Tech. Officer: HQ/J BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3640 UNIVERSITY OF MARYLAND - COLLEGE PARK **5433**
CRYOGENIC MONOCRYSTALLINE OPTICAL CAVITY FOR LASER STABILIZATION AND PRECISE TIME MEASUREMENTS
 06/15/1993 - 09/30/1996 FY98: -\$1 Total: \$164,999
Prin. Invest.: J RICHARD
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 3758 UNIVERSITY OF MARYLAND - COLLEGE PARK **5434**
MONITORING AND MODELING THE DYNAMICS OF COASTAL MARCHES: REGIONAL APPROACH USING LANDSAT DATA
 09/29/1993 - 12/31/1997 FY98: \$0 Total: \$781,830
Prin. Invest.: M KEARNEY
Tech. Officer: HQ/D M BUTLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4094 UNIVERSITY OF MARYLAND - COLLEGE PARK **5435**
PRECOLLEGE SCIENCE EDUCATION WORKSHOP
 08/01/1994 - 01/31/1997 FY98: \$0 Total: \$30,500
Prin. Invest.: R E LOPEZ
Tech. Officer: HQ/M V PHELPS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4188 UNIVERSITY OF MARYLAND - COLLEGE PARK **5436**
BIOSPHERIC MONITORING FROM SPACE: ENVIRONMENTAL CONSTRAINTS ON PRIMARY PRODUCTION
 11/22/1994 - 08/31/1997 FY98: -\$47 Total: \$267,314
Prin. Invest.: S N GOWARD
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4269 UNIVERSITY OF MARYLAND - COLLEGE PARK **5437**
MEASUREMENT OF THE SPIN VECTOR OF THE LAGEOS SPACE CRAFT
 01/25/1995 - 06/30/1997 FY98: \$0 Total: \$60,000
Prin. Invest.: D CURRIE
Tech. Officer: HQ/E J WEILER, HQ/K LEDBETTER
CASE Category: 13 - PHYSICS

NAGW 4285 UNIVERSITY OF MARYLAND - COLLEGE PARK **5438**
A STUDY OF THE SURFACE PROPERTIES AND ICE DYNAMICS OF THE GREENLAND ICE SHEET
 01/31/1995 - 08/31/1998 FY98: \$0 Total: \$262,676
Prin. Invest.: M FAHNESTOCK
Tech. Officer: HQ/R H THOMAS, HQ/M BALTUCK
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4554 UNIVERSITY OF MARYLAND - COLLEGE PARK **5439**
TOPOGRAPHIC EFFECTS ON SOLAR RADIATION AND REMOTELY SENSED RADIANCES
 06/09/1995 - 06/30/1998 FY98: \$0 Total: \$126,367
Prin. Invest.: R DUBAYAH, S LLANG
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4580 UNIVERSITY OF MARYLAND - COLLEGE PARK **5440**
GLOBAL HELIOSPHERIC STRUCTURE AND DYNAMICS
 06/28/1995 - 03/14/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: C C GOODRICH
Tech. Officer: HQ/W V JONES, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4661 UNIVERSITY OF MARYLAND - COLLEGE PARK **5441**
DEVELOPMENT AND TESTING OF OPERATIONAL ATMOSPHERIC CORRECTION OF SATELLITE DATA FOR THE NSF-LTER SI
 08/16/1995 - 12/31/1997 FY98: \$0 Total: \$193,235
Prin. Invest.: E V ERMOTE, J CASTLE, J C ROGER
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4670 UNIVERSITY OF MARYLAND - COLLEGE PARK **5442**
PARALLAXES AND PROPER MOTIONS OF BRIGHTEST MEMBERS OF ASTROPHYSICALLY PUZZLING CLASSES OF STARS
 09/15/1995 - 08/31/1998 FY98: \$0 Total: \$34,125
Prin. Invest.: V THIMBLE
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 4700 UNIVERSITY OF MARYLAND - COLLEGE PARK **5443**
THE UNITY OF ACTIVITY IN GALAXIES
 08/10/1995 - 09/30/1997 FY98: \$0 Total: \$129,200
Prin. Invest.: P A WILSON
Tech. Officer: HQ/G R RIEGLER
CASE Category: 11 - ASTRONOMY

NAGW 4740 UNIVERSITY OF MARYLAND - COLLEGE PARK **5444**
EVALUATION OF SURFACE RADIATION BUDGET ALGORITHMS WITH PATHFINDER DATA
 09/07/1995 - 06/30/1998 FY98: \$0 Total: \$169,271
Prin. Invest.: R T FINKER
Tech. Officer: HQ/M E MAIDEN
CASE Category: 11 - ATMOSPHERIC SCIENCE

NAGW 4790 UNIVERSITY OF MARYLAND - COLLEGE PARK **5445**
A VERSION TWO AVHRR MULTIREOLUTION LAND PATHFINDER DATA SET
 09/22/1995 - 12/31/1997 FY98: \$0 Total: \$688,763
Prin. Invest.: J TOWNSEND, E VORMOTE
Tech. Officer: HQ/M E MAIDEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4852 UNIVERSITY OF MARYLAND - COLLEGE PARK **5446**
LANDSAT PATHFINDER SCIENCE
 10/24/1995 - 12/31/1997 FY98: \$0 Total: \$165,500
Prin. Invest.: N AVAILABLE
Tech. Officer: HQ/M AVAILABLE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4922 UNIVERSITY OF MARYLAND - COLLEGE PARK **5447**
MICROWAVE OBSERVATIONS OF JUPITER'S TROPOSPHERE
 04/02/1996 - 12/31/1996 FY98: -\$20,687 Total: \$29,233
Prin. Invest.: A W GROSSMAN
Tech. Officer: HQ/E BARKER, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 4947 UNIVERSITY OF MARYLAND - COLLEGE PARK **5448**
VARIABLE ICE-SHEET DISCHARGE AND COASTAL CHANGE IN WEST ANTARCTICA
 02/23/1996 - 06/30/1998 FY98: \$0 Total: \$65,922
Prin. Invest.: M FAHNESTOCK, R KWOK, T SCAMBOS
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5056 UNIVERSITY OF MARYLAND - COLLEGE PARK **5449**
A SPECTROSCOPIC INVESTIGATION INTO THE MISSING UV OPACITY PROBLEM
 05/24/1996 - 12/31/1997 FY98: \$0 Total: \$71,161
Prin. Invest.: S BALACHANDRAN
Tech. Officer: HQ/G RIEGLER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 5088 UNIVERSITY OF MARYLAND - COLLEGE PARK **5450**
THEORETICAL MODELS OF COMETARY OBSERVATIONS
 06/24/1996 - 05/31/1998 FY98: \$0 Total: \$48,716
Prin. Invest.: M F A'HEARN
Tech. Officer: HQ/E BARKER, HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NAGW 5114 UNIVERSITY OF MARYLAND - COLLEGE PARK **5451**
LEARNING CONTROLLERS FOR ENHANCED AUTONOMY OF SPACE ROBOTS
 06/28/1996 - 04/30/1998 FY98: \$0 Total: \$64,988
Prin. Invest.: D M SANNER
Tech. Officer: HQ/R NETTING
CASE Category: 46 - MECHANICAL ENGR

NAGW 5119 UNIVERSITY OF MARYLAND - COLLEGE PARK **5452**
A DYNAMIC PRA TOOL FOR SPACE APPLICATIONS
 07/08/1996 - 03/31/1998 FY98: \$0 Total: \$74,943
Prin. Invest.: C SMIDTS, A MOSLEH
Tech. Officer: HQ/R M WEINSTOCK
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAGW 5175 UNIVERSITY OF MARYLAND - COLLEGE PARK **5453**
MAGNETIC RECONNECTION AND ASSOCIATED WAVE AND PARTICLE SIGNATURES IN COLLISIONLESS PLASMA
 10/03/1996 - 12/31/1997 FY98: \$0 Total: \$70,000
Prin. Invest.: J F DRAKE
Tech. Officer: HQ/J D BOHLIN, HQ/G L WITHBROE
CASE Category: 13 - PHYSICS

NAGW 5178 UNIVERSITY OF MARYLAND - COLLEGE PARK **5454**
COMPILATION OF GLOBAL TERRESTRIAL PRIMARY PRODUCTION DATA: PART II
 10/29/1996 - 06/30/1998 FY98: \$0 Total: \$143,986
Prin. Invest.: S D PRINCE, R J OLSON
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5191 UNIVERSITY OF MARYLAND - COLLEGE PARK **5455**
DETAILED QUANTITATIVE COMPARISON BETWEEN GLOBAL MODEL SIMULATION RESULTS & MULTIPOINT SPACECRAFT OBSERVATION
 09/20/1996 - 02/28/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: R E LOPEZ
Tech. Officer: HQ/J D BOHLIN, HQ/G L WITHBROE
CASE Category: 13 - PHYSICS

NAGW 5194 UNIVERSITY OF MARYLAND - COLLEGE PARK **5456**
COMBINING REMOTE SENSING & HYDROLOGICAL MODELING FOR APPLIED WATER & ENERGY BALANCE STUDIES
 09/20/1996 - 12/31/1998 FY98: \$0 Total: \$227,000
Prin. Invest.: D DUBAYAH *Prin. Invest.:* NONE
Tech. Officer: HQ/M WEI, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5227 UNIVERSITY OF MARYLAND - COLLEGE PARK **5457**
RESEARCH (GLOBAL)
 10/08/1996 - 05/31/1998 FY98: \$0 Total: \$97,300
Prin. Invest.: K VINNIKOV
Tech. Officer: HQ/M WEI, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5244 UNIVERSITY OF MARYLAND - COLLEGE PARK **5458**
NEW METHODS FOR MEASURING ICE MOTION
 10/29/1996 - 12/31/1998 FY98: \$0 Total: \$89,159
Prin. Invest.: M A FAHNESTOCK
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 33 - OCEANOGRAPHY

NAGW 5281 UNIVERSITY OF MARYLAND - COLLEGE PARK **5459**
ENHANCING EARTH SYSTEM SCIENCES USING COMMERCIAL TERRESTRIAL REMOTE SENSING SYSTEMS
 11/03/1997 - 11/02/1998 FY98: \$201,220 Total: \$201,220
Prin. Invest.: S GOWARD
Tech. Officer: SSC/B A DAVIS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 1 97129 UNIVERSITY OF MARYLAND - COLLEGE PARK **5460**
DEVELOPMENT OF DISTRIBUTED FIBER OPTIC BASED HYDROGEN SENSORS FOR A X-33 FUEL TANK
 05/20/1997 - 09/18/1997 FY98: \$0 Total: \$118,664
Prin. Invest.: J S SIRKIS
Tech. Officer: LARC/L MELVIN, LARC/R ROGOWSKI
CASE Category: 46 - MECHANICAL ENGR

NAS 3 25370 UNIVERSITY OF MARYLAND - COLLEGE PARK **5461**
CRITICAL FLUID LIGHT SCATTERING EXPERIMENTS (ZENO)
 12/22/1988 - 12/31/1997 FY98: \$0 Total: \$22,999,573
Prin. Invest.: R W GAMMON
Tech. Officer: LERC/R W LAUVER
CASE Category: 49 - ENGINEERING, OTHER

NAS 5 31365 UNIVERSITY OF MARYLAND - COLLEGE PARK **5462**
EOS EXECUTION PHASE
 01/02/1992 - 12/14/2001 FY98: \$465,600 Total: \$2,774,390
Prin. Invest.: C JUSTICE
Tech. Officer: GSFC/H OSEROFF
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 31732 UNIVERSITY OF MARYLAND - COLLEGE PARK **5463**
R & D STUDIES IN BIOSPHERE-ATMOSPHERE INTERACTIONS
 11/22/1991 - 12/31/1999 FY98: \$25,000 Total: \$753,400
Prin. Invest.: C JUSTICE
Tech. Officer: GSFC/P SELLERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 32378 UNIVERSITY OF MARYLAND - COLLEGE PARK **5464**
ATM/ACTS INTERFACE
 06/20/1995 - 03/31/1997 FY98: \$0 Total: \$39,942
Prin. Invest.: J S BARAS
Tech. Officer: GSFC/PGARY
CASE Category: 31 - ATMOSPHERIC SCIENCE

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| NAS 5 96060 UNIVERSITY OF MARYLAND - COLLEGE PARK 5465 DEFINITION PHASE ACTIVITIES ASSOCIATED WITH THE MODIS INSTRUMENT OF THE EOS 07/25/1996 - 12/14/2001 FY98: \$270,000 Total: \$663,000 <i>Prin. Invest.:</i> J TOWNSHEND <i>Tech. Officer:</i> GSFC/D TOLL CASE Category: 11 - ASTRONOMY | NCC 2 5237 UNIVERSITY OF MARYLAND - COLLEGE PARK 5473 INFRARED EMISSION AND THERMAL PROCESSES IN SPIRAL GALAXIES 08/26/1997 - 08/31/1999 FY98: \$112,985 Total: \$130,004 <i>Prin. Invest.:</i> L G MUNDY, M WHOTIVE <i>Tech. Officer:</i> AR/D J HOLLENBACH CASE Category: 11 - ASTRONOMY |
| NAS 5 96062 UNIVERSITY OF MARYLAND - COLLEGE PARK 5466 DEFINITION PHASE ACTIVITIES ASSOCIATED WITH MODIS INSTRUMENT OF THE EOS 07/02/1996 - 12/14/2001 FY98: \$385,562 Total: \$719,562 <i>Prin. Invest.:</i> E VERMONTE <i>Tech. Officer:</i> GSFC/D TOLL CASE Category: 31 - ATMOSPHERIC SCIENCE | NCC 3 528 UNIVERSITY OF MARYLAND - COLLEGE PARK 5474 CENTER FOR SATELLITE AND HYBRID COMMUNICATION NETWORKS 01/30/1997 - 12/31/1998 FY98: \$637,500 Total: \$1,537,500 <i>Prin. Invest.:</i> J S BHARAS <i>Tech. Officer:</i> LERC/J W BAGWELL, LERC/K B BHASIN CASE Category: 45 - ELECTRICAL ENGR |
| NAS 5 97160 UNIVERSITY OF MARYLAND - COLLEGE PARK 5467 VEGETATION CANOPY LIDAR MISSION FOR ESSP 05/15/1997 - 05/31/2002 FY98: \$8,222,588 Total: \$10,256,588 <i>Prin. Invest.:</i> R DUBAYAH <i>Tech. Officer:</i> GSFC/J ROBINSON CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NCC 5 39 UNIVERSITY OF MARYLAND - COLLEGE PARK 5475 RESEARCH ATMOSPHERIC SCIENCES—SUMMER INSTITUTE 07/15/1988 - 04/30/1997 FY98: \$0 Total: \$833,861 <i>Prin. Invest.:</i> F BAER <i>Tech. Officer:</i> GSFC/E R KREINS CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NCC 2 829 UNIVERSITY OF MARYLAND - COLLEGE PARK 5468 EVALUATION OF METHODOLOGY FOR TESTING & ANALYSIS OF ADVANCED ROTORS 09/30/1993 - 12/31/1998 FY98: \$118,273 Total: \$358,273 <i>Prin. Invest.:</i> I CHOPRA, F HARRIS <i>Tech. Officer:</i> ARC/W G WARMBRODT, ARC/F FELKER CASE Category: 41 - AERONAUTICAL ENGR | NCC 5 54 UNIVERSITY OF MARYLAND - COLLEGE PARK 5476 COOPERATIVE RESEARCH IN SATELLITE BASED STUDIES OF PHOTONS AND CHARGED PARTICLES 08/04/1993 - 07/31/1997 FY98: \$0 Total: \$3,083,210 <i>Prin. Invest.:</i> J TRASCO <i>Tech. Officer:</i> GSFC/A K HARDING CASE Category: 3 - PHYSICS |
| NCC 2 944 UNIVERSITY OF MARYLAND - COLLEGE PARK 5469 CENTER FOR ROTORCRAFT EDUCATION & RESEARCH 02/23/1996 - 12/31/1998 FY98: \$762,671 Total: \$2,275,958 <i>Prin. Invest.:</i> I CHOPRA <i>Tech. Officer:</i> ARC/Y H YU, ARC/J M DAVIS CASE Category: 41 - AERONAUTICAL ENGR | NCC 5 55 UNIVERSITY OF MARYLAND - COLLEGE PARK 5477 JOINT CENTER FOR EARTH SYSTEM SCIENCE 09/22/1993 - 09/30/1999 FY98: \$1,066,825 Total: \$4,895,319 <i>Prin. Invest.:</i> R D HUDSON <i>Tech. Officer:</i> GSFC/F EINAUDI, GSFC/C E COTE CASE Category: 11 - ASTRONOMY |
| NCC 2 1058 UNIVERSITY OF MARYLAND - COLLEGE PARK 5470 DUST DESTRUCTION & EMISSION IN SUPERNOVA REMNANTS 07/23/1998 - 07/14/1999 FY98: \$13,756 Total: \$13,756 <i>Prin. Invest.:</i> L G MUNDY <i>Tech. Officer:</i> ARC/D J HOLLENBACH CASE Category: 11 - ASTRONOMY | NCC 5 60 UNIVERSITY OF MARYLAND - COLLEGE PARK 5478 COOPERATIVE RESEARCH IN SPACE GEODESY AND CRUSTAL DYNAMICS 12/06/1993 - 04/30/1998 FY98: \$67,000 Total: \$992,975 <i>Prin. Invest.:</i> J TRASCO, J D TRASCO <i>Tech. Officer:</i> GSFC/P MC CLAIN CASE Category: 1 - ASTRONOMY |
| NCC 2 5206 UNIVERSITY OF MARYLAND - COLLEGE PARK 5471 THE DIFFUSE INTERSTELLAR MEDIUM 03/06/1997 - 09/30/1997 FY98: \$0 Total: \$24,487 <i>Prin. Invest.:</i> L MUNDY <i>Tech. Officer:</i> ARC/D HOLLENBACH CASE Category: 11 - ASTRONOMY | NCC 5 81 UNIVERSITY OF MARYLAND - COLLEGE PARK 5479 SCANNING RAMAN LIDAR TO MEASURE WATER VAPOR AND AEROSOLS FOR THE STUDY OF ATMOSPHERIC RADIATIVE.... 11/18/1994 - 02/28/1998 FY98: \$0 Total: \$70,000 <i>Prin. Invest.:</i> R ELLINGSON, S H MELFI, R A FERRARE <i>Tech. Officer:</i> GSFC/G K SCHWEMMER, GSFC/R F ADLER CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NCC 2 5219 UNIVERSITY OF MARYLAND - COLLEGE PARK 5472 PLANETARY NEBULAE WITH SUPPORTING INFRARED DATA 06/05/1997 - 05/31/1998 FY98: \$0 Total: \$4,423 <i>Prin. Invest.:</i> J HARRINGTON <i>Tech. Officer:</i> ARC/D GOORITCH CASE Category: 11 - ASTRONOMY | NCC 5 85 UNIVERSITY OF MARYLAND - COLLEGE PARK 5480 ESTABLISHMENT OF FLIGHT DYNAMICS AND CONTROL LABORATORY 03/22/1995 - 05/31/1998 FY98: \$0 Total: \$434,253 <i>Prin. Invest.:</i> D K SCHMIDT <i>Tech. Officer:</i> GSFC/P L CROUSE, GSFC/T H STENGLE CASE Category: 42 - AERONAUTICAL ENGR |

NCC 5 86 UNIVERSITY OF MARYLAND – COLLEGE PARK **5481**
ATMOSPHERIC EFFECTS OF MID-SIZED VOLCANIC ERUPTION
 03/28/1995 – 04/30/1998 FY98: \$0 Total: \$225,338
Prin. Invest.: C C SCHNETZLER
Tech. Officer: GSFC/A KRUEGER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 5 128 UNIVERSITY OF MARYLAND – COLLEGE PARK **5482**
A STUDY OF THE DEVELOPMENT OF REMOTE SENSING ALGORITHMS WITH EMPHASIS ON USING THE MODIS INSTR.
 01/18/1996 – 12/31/1998 FY98: \$291,198 Total: \$718,552
Prin. Invest.: A J FLAG
Tech. Officer: GSFC/S SAMADI, GSFC/E MASUOKA
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 5 133 UNIVERSITY OF MARYLAND – COLLEGE PARK **5483**
SATELLITE REMOTE SENSING METHODS FOR TERRESTRIAL BIOPHYSICAL MONITORING AND MODELING
 02/22/1996 – 05/31/1999 FY98: \$253,435 Total: \$610,310
Prin. Invest.: S GOWARD, R DUBAYAH, J G TOWNSEND
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 11 – ASTRONOMY

NCC 5 139 UNIVERSITY OF MARYLAND – COLLEGE PARK **5484**
MCTP SUMMER INTERNS AT NASA WOLLOPS FLIGHT FACILITY
 06/03/1996 – 12/31/1996 FY98: \$400 Total: \$4,870
Prin. Invest.: K LANGFORD
Tech. Officer: GSFC/L C ROSSI
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 5 144 UNIVERSITY OF MARYLAND – COLLEGE PARK **5485**
CITY LIGHTS DATA FOR THE MIDDLE EAST: DATA REGISTRATION AND ANALYSIS (NO COST TIME EXTENSION)
 07/16/1996 – 07/31/1997 FY98: \$9,638 Total: \$16,288
Prin. Invest.: W LAWRENCE
Tech. Officer: GSFC/M L IMHOFF
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 5 150 UNIVERSITY OF MARYLAND – COLLEGE PARK **5486**
GRAND CHALLENGE APPLICATIONS
 09/04/1996 – 09/03/1999 FY98: \$600,000 Total: \$1,242,000
Prin. Invest.: P LYSTER
Tech. Officer: GSFC/J R FISCHER
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NCC 5 170 UNIVERSITY OF MARYLAND – COLLEGE PARK **5487**
EVALUATION OF SOFTWARE ENGINEERING METHODOLOGIES
 11/20/1996 – 10/31/1998 FY98: \$472,500 Total: \$919,800
Prin. Invest.: V R BASILI, M V ZELKOWITZ
Tech. Officer: GSFC/S GREEN
CASE Category: 22 – COMPUTER SCIENCE

NCC 5 180 UNIVERSITY OF MARYLAND – COLLEGE PARK **5488**
THIS GRANT PROVIDES POST-DOC SUPPORT, FELLOWSHIPS, LABORATORY FOR HIGH ENERGY ASTROPHYSICS
 02/06/1997 – 01/31/1999 FY98: \$899,511 Total: \$2,365,731
Prin. Invest.: J D TRASCO
Tech. Officer: GSFC/A HARDING
CASE Category: 11 – ASTRONOMY

NCC 5 190 UNIVERSITY OF MARYLAND – COLLEGE PARK **5489**
SUPPORT OF THE EARTH SYSTEM SCIENCE INTERDISCIPLIN
 04/04/1997 – 03/31/1999 FY98: \$0 Total: \$600,000
Prin. Invest.: D TOWNSHEND
Tech. Officer: GSFC/R C HARRISS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 5 216 UNIVERSITY OF MARYLAND – COLLEGE PARK **5490**
SUMMER INSTIT. ON ATMOSPHERIC AND HYDROSPHERIC SCI
 07/15/1997 – 04/30/1999 FY98: \$0 Total: \$93,382
Prin. Invest.: F BAER
Tech. Officer: GSFC/R HARTLE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 5 227 UNIVERSITY OF MARYLAND – COLLEGE PARK **5491**
COMMERCIAL SATELLITE SYSTEMS FOR HIGH DATA RATE COPLICATIONS TO THE INTERNATIONAL SPACE STATION AND
 08/19/1997 – 12/31/1997 FY98: \$0 Total: \$297,852
Prin. Invest.: D S BARAS
Tech. Officer: GSFC/V CEVENINI
CASE Category: 59 – LIFE SCIENCE, OTHER

NCC 5 238 UNIVERSITY OF MARYLAND – COLLEGE PARK **5492**
COOPERATIVE RESEARCH AGREEMENT FOR SPACE LASER RES MD, A. JAMES CLARK SCHOOL OF ENGINEERING & NASA/G
 09/18/1997 – 08/31/2000 FY98: \$1,454,800 Total: \$1,604,800
Prin. Invest.: R AFZAL
Tech. Officer: GSFC/R AFZAL
CASE Category: 49 – ENGINEERING, OTHER

NCC 5 243 UNIVERSITY OF MARYLAND – COLLEGE PARK **5493**
RANGER TELEBOTIC FLIGHT EXPERIMENT
 11/03/1997 – 03/31/1999 FY98: \$4,511,377 Total: \$4,511,377
Prin. Invest.: D AKIN
Tech. Officer: GSFC/D LAVERY
CASE Category: 11 – ASTRONOMY

NCC 5 250 UNIVERSITY OF MARYLAND – COLLEGE PARK **5494**
SURFACE COMPOSITION OF IO; LABORATORY INVESTIGATIONS OF THE EFFECTS OF PROTON BOMBARDMENT AND QUEN
 10/28/1997 – 06/30/1998 FY98: \$12,000 Total: \$12,000
Prin. Invest.: D KHANNA
Tech. Officer: GSFC/R BEEBE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 5 255 UNIVERSITY OF MARYLAND – COLLEGE PARK **5495**
COOPERATIVE RESEARCH IN THE SPACE SCIENCES
 12/30/1997 – 10/31/1998 FY98: \$228,142 Total: \$228,142
Prin. Invest.: J TRASCO
Tech. Officer: GSFC/T KOSTIUK
CASE Category: 11 – ASTRONOMY

NCC 5 274 UNIVERSITY OF MARYLAND – COLLEGE PARK **5496**
SUMMER INSTITUTE ON ATMOSPHERIC AND HYDROSPHERIC SCIENCES
 04/30/1998 – 04/30/1999 FY98: \$97,523 Total: \$97,523
Prin. Invest.: F BAER
Tech. Officer: GSFC/R HARTLE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 5 300 UNIVERSITY OF MARYLAND - COLLEGE PARK **5497**
A LANDCOVER EARTH SCIENCE INFORMATION PARTNERSHIP
 04/21/1998 - 02/28/2001 FY98: \$1,100,000 Total: \$1,100,000
Prin. Invest.: J TOWNSENDE, NONE
Tech. Officer: GSFC/M MAIDEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 324 UNIVERSITY OF MARYLAND - COLLEGE PARK **5498**
SCANNING RAMAN LIDAR TO MEASURE WATER VAPOR AND AEROSOLS FOR THE STUDY OF ATMOSPHERIC RADIATION ME
 03/25/1998 - 02/28/1999 FY98: \$24,000 Total: \$24,000
Prin. Invest.: R G ELLINGSON
Tech. Officer: GSFC/G SCHWEMMER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 353 UNIVERSITY OF MARYLAND - COLLEGE PARK **5499**
FUNDS ARE PROVIDED FOR THE GRANT PROPOSAL BY THE UNIVERSITY RESEARCH FOUNDATION FOR ENVIRONET TO
 08/04/1998 - 06/30/1999 FY98: \$40,685 Total: \$40,685
Prin. Invest.: C F MARTIN
Tech. Officer: GSFC/H PARK
CASE Category: 22 - COMPUTER SCIENCE

NCC 8 70 UNIVERSITY OF MARYLAND - COLLEGE PARK **5500**
BATSE STUDIES
 03/13/1995 - 10/31/1997 FY98: \$0 Total: \$35,964
Prin. Invest.: I M MITROFANOV, R SAGDEEV
Tech. Officer: MSFC/G J FISHMAN
CASE Category: 11 - ASTRONOMY

NCCW 39 UNIVERSITY OF MARYLAND - COLLEGE PARK **5501**
"FLIGHT TESTING OF A WATER CAPILLARY PUMPED LOOP" 12-MONTH AWARD
 03/30/1994 - 08/31/1997 FY98: \$0 Total: \$156,796
Prin. Invest.: K R KOLOS
Tech. Officer: HQ/R GUALDONI
CASE Category: 13 - PHYSICS

NCCW 69 UNIVERSITY OF MARYLAND - COLLEGE PARK **5502**
COOPERATIVE PROGRAM IN U.S. RUSSIAN SPACE TECHNOLOGY
 01/11/1995 - 06/30/1997 FY98: \$0 Total: \$215,813
Prin. Invest.: R SAGDEEV
Tech. Officer: HQ/G LESANE
CASE Category: 59 - LIFE SCIENCE, OTHER

NCCW 80 UNIVERSITY OF MARYLAND - COLLEGE PARK **5503**
DEVELOPMENT OF THE RANGER TELEROBOTIC FLIGHT EXPERIMENT
 08/16/1995 - 07/30/1998 FY98: \$0 Total: \$4,221,478
Prin. Invest.: D L AKIN
Tech. Officer: HQ/D LAVERY
CASE Category: 42 - AERONAUTICAL ENGR

NGT 30276 UNIVERSITY OF MARYLAND - COLLEGE PARK **5504**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/22/1994 - 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: S NIGAM
Tech. Officer: HQ/J S THEON, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30332 UNIVERSITY OF MARYLAND - COLLEGE PARK **5505**
GLOBAL CHANGE FELLOWSHIP
 08/31/1995 - 03/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: B KEDEM
Tech. Officer: HQ/G ASRAR, HQ/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 51096 UNIVERSITY OF MARYLAND - COLLEGE PARK **5506**
GRADUATE STUDENT RESEARCHERS (UMF) PROGRAM
 07/07/1993 - 10/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: R MUSHOTZKY
Tech. Officer: GSFC/M BURRELL
CASE Category: 11 - ASTRONOMY

NGT 51391 UNIVERSITY OF MARYLAND - COLLEGE PARK **5507**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/28/1995 - 06/30/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: S N LEE
Tech. Officer: HQ/D GLASCO
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52158 UNIVERSITY OF MARYLAND - COLLEGE PARK **5508**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/23/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: J W SABEAN
Tech. Officer: LARC/G Y ANDERSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 2 52214 UNIVERSITY OF MARYLAND - COLLEGE PARK **5509**
SHAPE MEMORY ALLOY ACTUATION FOR ACTIVE TUNING OF COMPOSITE SHAFES
 07/17/1996 - 06/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: I CHOPRA
Tech. Officer: AIC/K Q NGYUEN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 1 UNIVERSITY OF MARYLAND - COLLEGE PARK **5510**
X-RAY OBSERVATIONS OF GALACTIC NUCLEI
 06/22/1995 - 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J F GOODMAN
Tech. Officer: GSFC/G A SOFFEN, GSFC/P J SERLEMITOS
CASE Category: 11 - ASTRONOMY

NGT 5 2 UNIVERSITY OF MARYLAND - COLLEGE PARK **5511**
EXAMINING ABUNDANCE ANOMALIES IN GLOBULAR CLUSTER STARS
 06/22/1995 - 06/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: R J BELL
Tech. Officer: GSFC/G A SOFFEN, GSFC/A V SWEIGART
CASE Category: 11 - ASTRONOMY

NGT 5 13 UNIVERSITY OF MARYLAND - COLLEGE PARK **5512**
1996 ASSE - NASA SUMMER FACULTY FELLOWSHIP PROGRAM
 03/26/1996 - 03/31/1998 FY98: \$0 Total: \$452,000
Prin. Invest.: H F BOROSON
Tech. Officer: GSFC/G A SOFFEN, GSFC/M S BURRELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 15 UNIVERSITY OF MARYLAND - COLLEGE PARK **5513**
**DEVELOPMENT OF A REDESIGNED MINI POWER TOOL FOR EX TRAVEHIC-
 ULAR ACTIVITY**
 07/15/1997 - 06/30/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: D AKIN
Tech. Officer: GSFC/G A SOFFEN, GSFC/J VRANISH
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50 UNIVERSITY OF MARYLAND - COLLEGE PARK **5514**
DEVELOPMENT OF A RATCHETLESS WRENCH FOR EXTRAVEHIC
 06/23/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: D L AKIN
Tech. Officer: GSFC/M S BURRELL
CASE Category: 46 - MECHANICAL ENGR

NGT 5 52 UNIVERSITY OF MARYLAND - COLLEGE PARK **5515**
**GSRP TRAINING GRANT: "REGIONAL SCALE MODELING" ST ERIC ALT-
 SHULER; GSFC TECHNICAL ADVISOR: WEI-KUO T**
 06/23/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D ZHANG
Tech. Officer: GSFC/G SOFFEN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 60 UNIVERSITY OF MARYLAND - COLLEGE PARK **5516**
**MEASUREMENT OF FIBER STRAIN IN TERMINATED FIBER CO NNECTOR
 ASSEMBLIES USING IN-FIBER BRAGG GRATING A**
 10/24/1997 - 08/14/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: T MEAD
Tech. Officer: GSFC/G ASRAR
CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 5 62 UNIVERSITY OF MARYLAND - COLLEGE PARK **5517**
**1998 ASEE-NASA SUMMER FACULTY FELLOWSHIP PROGRAM (AERO-
 NAUTICS AND SPACE RESEARCH)**
 04/22/1998 - 04/14/1999 FY98: \$357,996 Total: \$357,996
Prin. Invest.: M GAVRILAS
Tech. Officer: GSFC/G A SOFFEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30021 UNIVERSITY OF MARYLAND - COLLEGE PARK **5518**
ROLE OF MOUNTAINS IN THE GENERATION OF SEASONAL CL
 10/14/1996 - 08/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: S NIGAM
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30087 UNIVERSITY OF MARYLAND - COLLEGE PARK **5519**
**ON THE ESTIMATION OF AREA AVERAGE RAIN RATE BASED EARTH SYS-
 TEM SCIENCE FELLOWSHIP PROGRAM/PFEIFFER**
 09/09/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: B KEDEM
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30142 UNIVERSITY OF MARYLAND - COLLEGE PARK **5520**
**THE EFFECT OF WARM TROPICAL ATLANTIC SST ON EARLY SEASON
 CARIBBEAN RAIN-FALL**
 08/27/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: A VERNEKAR, TAYLOR
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50083 UNIVERSITY OF MARYLAND - COLLEGE PARK **5521**
CHEMISTRY IN COMETS HALE-BOPP AND HYAKUTAKE
 09/05/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: A HEARN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50217 UNIVERSITY OF MARYLAND - COLLEGE PARK **5522**
**CONVECTIVE EFFECTS ON TROPOSPHERIC OZONE CHEMISTRY STUDIED
 WITH ACOUPLED CLOUD/CHEMISTRY MOD**
 09/15/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: K PICKERING
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NSG 5123 UNIVERSITY OF MARYLAND - COLLEGE PARK **5523**
EVALUATION OF SOFTWARE ENGR DISCIPLINES
 08/01/1976 - 12/31/1996 FY98: \$0 Total: \$3,754,292
Prin. Invest.: V R BASILI, D H ROMBACH, M V ZELKOWITZ
Tech. Officer: GSFC/R PAJERSKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2765 UNIVERSITY OF MARYLAND - EASTERN SHORE **5524**
UNIVERSITY OF MARYLAND EASTERN SHORE ENGINEERING PROGRAM
 10/26/1994 - 12/31/1997 FY98: \$0 Total: \$148,185
Prin. Invest.: R MULLER
Tech. Officer: GSFC/D MENCHEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 64 UNIVERSITY OF MARYLAND - EASTERN SHORE **5525**
PRE-COLLEGE TO COLLEGE BRIDGE PROGRAM FOR SUMMER 1 998.
 05/26/1998 - 07/31/1998 FY98: \$86,000 Total: \$86,000
Prin. Invest.: D WOLSON
Tech. Officer: GSFC/R WESTCOTT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4254 UNIVERSITY OF MARYLAND BALTIMORE **5526**
**RESEARCH DEVELOPMENT OF A HIGH PERFORMANCE BALTIMO SPATIAL
 DATABASE CALIBRATION TESTBED DIRECTED TOW**
 04/01/1997 - 03/31/1999 FY98: \$0 Total: \$297,865
Prin. Invest.: D W FORESMAN
Tech. Officer: GSFC/N MAYNARD
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6856 UNIVERSITY OF MARYLAND BALTIMORE **5527**
**VALIDATION OF H2O AND O3 MEASUREMENTS FROM SAGE II I USING TRA-
 JECTORYMAPPING AND CONSTITUENT REC**
 02/03/1998 - 01/31/1999 FY98: \$0 Total: \$0
Prin. Invest.: G MORRIS
Tech. Officer: GSFC/M SCHOEBERL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 5040 UNIVERSITY OF MARYLAND BALTIMORE **5528**
**RESEARCH & DEVELOPMENT OF HIGH PERFORMANCE BALTIMO RE-
 WASHINGTON REGIONAL SPATIALDATABASE CALIBRATI**
 04/22/1996 - 06/30/1997 FY98: \$0 Total: \$153,906
Prin. Invest.: T FORESMAN
Tech. Officer: HQ/N MAYNARD, HQ/R C HARRISS
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 5070 UNIVERSITY OF MARYLAND BALTIMORE **5529**
DEV. & SUPPORT OF IMPLEMENTATION PROG. FOR EOS POTENTIAL
USER COMMUNITY THROUGH REGIONAL
 05/30/1996 - 09/30/1997 FY98: \$0 Total: \$150,000
Prin. Invest.: T W FORESMAN
Tech. Officer: HQ/A TUYAHOV
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 921 UNIVERSITY OF MARYLAND BALTIMORE **5530**
REMOTE DECISION-MAKING FOR TRAUMA PATIENT RESUSCITATION
 08/28/1995 - 05/31/1998 FY98: \$0 Total: \$289,736
Prin. Invest.: C F MACKENZIE
Tech. Officer: ARC/J M ORASANU
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 1 2022 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5531**
A CLIMATOLOGY OF TROPOSPHERIC CO OVER THE CENTRAL AND
SOUTHEASTERN UNITED STATES AND THE SOUTHWESTERN
 03/12/1998 - 03/11/1999 FY98: \$75,000 Total: \$75,000
Prin. Invest.: W W MCMILLAN, G MORRIS, L STROW
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1094 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5532**
SCALABLE BENCHMARKS FOR MASS STORAGE SYSTEMS
 12/06/1996 - 12/31/1998 FY98: \$97,643 Total: \$192,638
Prin. Invest.: E L MILLER
Tech. Officer: ARC/J R LEKASHMAN, ARC/S F WALWORTH
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2194 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5533**
ADAPTIVE PHASE ALIGNMENT OF SYNTHETIC APERTURES FOR
COHERENT OPTICAL COMMUNICATIONS
 02/09/1993 - 02/14/1997 FY98: \$0 Total: \$223,100
Prin. Invest.: J M MORRIS
Tech. Officer: GSFC/B D SEERY
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 2751 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5534**
OUTREACH PROGRAM FOR FEDERAL LABS
 10/07/1994 - 06/30/1999 FY98: \$200,000 Total: \$503,325
Prin. Invest.: HIABROWSKI
Tech. Officer: GSFC/D MENCHEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 2893 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5535**
INTERACTIVE STEREO VOLUME VISUALIZATION FOR SPACE PHYSICS
DATA
 02/17/1995 - 12/31/1997 FY98: \$0 Total: \$69,571
Prin. Invest.: D S EBERT
Tech. Officer: GSFC/D A ROBERTS
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 3907 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5536**
LABORATORY QUANTITATIVE SPECTROSCOPY OF MODELS OF A
 02/11/1997 - 02/14/1999 FY98: \$73,515 Total: \$144,611
Prin. Invest.: D SIROTA
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6093 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5537**
EFFECTS OF EXPOSURE TO HEAVY PARTICLES
 09/05/1997 - 09/30/1999 FY98: \$10,365 Total: \$36,876
Prin. Invest.: B TABIN
Tech. Officer: HQ/L CHAMBERS
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6460 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5538**
VALIDATION OF MOPITT COLUMN & PROFILE CO FROM SPAC EBORNE,
AIRBORNE, & GROUND-BASED INTERFEROMETERS
 10/14/1997 - 09/30/1998 FY98: \$77,163 Total: \$77,163
Prin. Invest.: W MCMILLAN
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6514 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5539**
DEVELOPMENT AND SUPPORT OF IMPLEMENTATION PROGRAM FOR EOS
POTENTIAL USER COMMUNITY THROUGH REGIONAL
 11/25/1997 - 09/30/1998 FY98: \$175,000 Total: \$175,000
Prin. Invest.: D V I FORESMAN
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6555 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5540**
MOLECULAR DAMAGE OF HUMAN CELLS BY X-RAYS AND NEUTRONS
 10/24/1997 - 04/30/1998 FY98: \$220,538 Total: \$220,538
Prin. Invest.: E BALCER-KUBICZEK
Tech. Officer: GSFC/W SCHIMMERLING
CASE Category: 33 - OCEANOGRAPHY

NAG 5 6574 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5541**
VALIDATION OF H2O AND O3 MEASUREMENTS FROM SAGE II USING TRA-
JECTORY MAPPING AND CONSTITUENT REC
 11/17/1997 - 10/31/1998 FY98: \$61,595 Total: \$61,595
Prin. Invest.: G A MORRIS
Tech. Officer: GSFC/J C DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6675 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5542**
VALIDATION OF CLOUD OPTICAL DEPTHS RETRIEVED FROM EOS/MODIS
DATA
 12/01/1997 - 09/30/1999 FY98: \$128,596 Total: \$128,596
Prin. Invest.: A M I RSHAK
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6681 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5543**
ASSIMILATION OF WIND OBSERVATIONS FROM THE HIGH RESOLUTION
DOPPLERIMAGER
 12/05/1997 - 11/30/1998 FY98: \$142,207 Total: \$142,207
Prin. Invest.: D MENARD
Tech. Officer: GSFC/C JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6996 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5544**
A STUDY OF UNCERTAINTIES FOR MODIS CLOUD RETRIEVALS OF OPTI-
CAL THICKNESS AND EFFECTIVE RADIUS
 02/06/1998 - 12/31/1999 FY98: \$110,510 Total: \$110,510
Prin. Invest.: D PLITNICK
Tech. Officer: GSFC/D STARR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7385 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5545**
X-RAY SPECTROSCOPY OF ACTIVE GALACTIC NUCLEI: (LT SA)
 05/15/1998 - 06/30/1999 FY98: \$113,447 Total: \$113,447
 Prin. Invest.: T J TURNER
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 7562 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5546**
SIMPLE MODELS OF THE SPATIAL DISTRIBUTION OF CLOUD RADIATIVE
PROPERTIES FOR REMOTE SENSING STUDIES
 06/29/1998 - 06/30/1999 FY98: \$46,995 Total: \$46,995
 Prin. Invest.: R PINCUS, NONE
 Tech. Officer: GSFC/W WISCOMBEE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7563 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5547**
MODELING OF SHORTWAVE RADIATION FIELDS USING ATMOSPHERIC
RADIATION MEASUREMENTS (ARM) AND LANDSAT D
 06/29/1998 - 06/30/1999 FY98: \$101,920 Total: \$101,920
 Prin. Invest.: A MARSHAK
 Tech. Officer: GSFC/W WISCOMBEE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4394 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5548**
EFFECTS OF EXPOSURE TO HEAVY PARTICLES
 04/04/1995 - 02/14/1998 FY98: \$0 Total: \$58,813
 Prin. Invest.: B M RABIN
 Tech. Officer: HQ/F M SULZMAN
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4419 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5549**
RESEARCH AND DEVELOPMENT FOR REMOTE SENSING APPLICATIONS
SUPPORTING A NATIONAL REMOTE SENSING CORE
 04/19/1995 - 03/31/1998 FY98: \$0 Total: \$287,100
 Prin. Invest.: T FOREMAN
 Tech. Officer: HQ/M A PINE, HQ/L A OSTENDORF
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 31378 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5550**
EOS EXECUTION PHASE
 12/16/1991 - 12/14/2001 FY98: \$415,000 Total: \$1,703,000
 Prin. Invest.: L L STROW
 Tech. Officer: GSFC/E R KREINS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 91 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5551**
THE GSFC/UMBC RESEARCH FELLOWS PROGRAM
 06/05/1995 - 05/31/1997 FY98: \$0 Total: \$201,650
 Prin. Invest.: C WEIDEMANN
 Tech. Officer: GSFC/G A SOFFEN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 92 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5552**
JOINT CENTER FOR EARTH SYSTEMS TECHNOLOGY
 06/27/1995 - 06/30/1998 FY98: \$1,231,617 Total: \$4,489,006
 Prin. Invest.: S H MELFI
 Tech. Officer: GSFC/R E HARTLE, GSFC/C E COTE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 220 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5553**
DESKTOP STEREOSCOPIC VISUALIZATION AND ANALYSIS OF MULTI-DI-
MENSIONAL DATA SETS
 08/19/1997 - 12/31/1998 FY98: \$0 Total: \$68,467
 Prin. Invest.: D S EBERT
 Tech. Officer: GSFC/A ROBERTS
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 5 339 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5554**
JOINT CENTER FOR EARTH SYSTEM TECHNOLOGY NEW AWARD
 07/01/1998 - 06/30/1999 FY98: \$1,335,965 Total: \$1,335,965
 Prin. Invest.: S H MELFI
 Tech. Officer: GSFC/R E HARTLE, GSFC/C E COTE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 361 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5555**
DESKTOP STEREOSCOPIC VISUALIZATION AND ANALYSIS OF MULTI-
DIMENSIONAL DATA SETS
 09/08/1998 - 09/14/1999 FY98: \$65,058 Total: \$65,058
 Prin. Invest.: D S EBERT
 Tech. Officer: GSFC/A ROBERTS
 CASE Category: 22 - COMPUTER SCIENCE

NGT 5 48 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5556**
HOLOGRAPHIC STORAGE USING PHOTOREFRACTIVE POLYMERS
 06/23/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
 Prin. Invest.: L M HAYDEN
 Tech. Officer: GSFC/M S BURRELL
 CASE Category: 22 - COMPUTER SCIENCE

NGT 5 53 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5557**
PERFORMANCE ANALYSIS OF A HEAT DRIVEN PULSE PUMP
 06/23/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
 Prin. Invest.: N T WRIGHT
 Tech. Officer: GSFC/M S BURRELL
 CASE Category: 46 - MECHANICAL ENGR

NGT 5 90049 UNIVERSITY OF MARYLAND BALTIMORE COUNTY **5558**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 02/12/1997 - 08/14/1998 FY98: \$0 Total: \$48,000
 Prin. Invest.: R KAIL
 Tech. Officer: GSFC/R LAWRENCE
 CASE Category: 46 - MECHANICAL ENGR

NCC 5 194 WESTERN MARYLAND COLLEGE **5559**
GROUND-BASED TESTING OF A PROTOTYPE HOLOGRAPHIC AT FOR
ENVIRONMENTAL REMOTE SENSING (PHASERS)
 05/15/1997 - 04/30/1998 FY98: \$0 Total: \$15,000
 Prin. Invest.: D GUERRA
 Tech. Officer: GSFC/G SCHWEMMER
 CASE Category: 31 - ATMOSPHERIC SCIENCE

MASSACHUSETTS

NAG 1 955 BOSTON COLLEGE **5560**
ENHANCEMENT OF SOLID-STATE INFRARED LASER OUTPUT VIA INTER-
IONIC ENERGY TRANSFER
 01/17/1989 - 04/30/1998 FY98: \$0 Total: \$331,563
 Prin. Invest.: B DIBARTOLO
 Tech. Officer: LARC/P BROCKMAN
 CASE Category: 13 - PHYSICS

| | | | | | |
|-----------------------------------------------------------------------------------------|-------------------|--------------------|------------------------------------------------------------------------------------------------------------|-------------------|--------------------|
| NAG 1 2057 | BOSTON COLLEGE | 5561 | NAG 2 1054 | BOSTON UNIVERSITY | 5568 |
| ENHANCEMENT OF SOLID STATE LASER OUTPUT VIA INTERIOR ENERGY TRANSFER | | | IMPACT OF FAR-INFRARED IMAGING PHOTOMETER AND POLARIMETER DESIGN STUDY | | |
| 04/24/1998 - 11/30/1998 | FY98: \$50,822 | Total: \$50,822 | 06/17/1996 - 03/31/1997 | FY98: \$0 | Total: \$65,209 |
| Prin. Invest.: B DIBARTOIO, B WALSH | | | Prin. Invest.: D P CLEMENS | | |
| Tech. Officer: LARC/N P BARNES, LARC/J C BARNES | | | Tech. Officer: LARC/L QUARF, LARC/C B WILTSEE | | |
| CASE Category: 13 - PHYSICS | | | CASE Category: 11 - ASTRONOMY | | |
| NAG 5 4946 | BOSTON COLLEGE | 5562 | NAG 3 1844 | BOSTON UNIVERSITY | 5569 |
| CHANGES IN MAGNETIC TOPOLOGY ASSOCIATED WITH CORONAL OBSERVED BY LASCO | | | DETERMINATION OF INTERFACIAL RHEOLOGICAL PROPERTIES THROUGH MICROGRAVITY OSCILLATIONS OF BUBBLES DR | | |
| 06/24/1997 - 06/14/1999 | FY98: \$0 | Total: \$49,998 | 05/03/1996 - 03/31/2000 | FY98: \$68,000 | Total: \$184,000 |
| Prin. Invest.: D F WEBB | | | Prin. Invest.: A VADIM | | |
| Tech. Officer: GSFC/W J WAGNER | | | Tech. Officer: LARC/B SINGH | | |
| CASE Category: 13 - PHYSICS | | | CASE Category: 31 - ATMOSPHERIC SCIENCE | | |
| NAG 8 1304 | BOSTON COLLEGE | 5563 | NAG 3 2121 | BOSTON UNIVERSITY | 5570 |
| R/S FIBRIL FORMATION BY ALZHEIMER'S DISEASE AMYLOID IN MICROGRAVITY | | | RHEOLOGY OF FOAM NEAR THE ORDER-DISORDER TRANSITION | | |
| 10/24/1996 - 10/23/1998 | FY98: \$161,348 | Total: \$314,620 | 02/17/1998 - 01/07/2000 | FY98: \$50,000 | Total: \$50,000 |
| Prin. Invest.: D KIRSCHNER | | | Prin. Invest.: R G HOLT, J G MCDANIEL | | |
| Tech. Officer: MSFC/L KARR, MSFC/D C CARTER | | | Tech. Officer: LARC/R B ROGERS | | |
| CASE Category: 59 - LIFE SCIENCE, OTHER | | | CASE Category: 13 - PHYSICS | | |
| NAGW 4578 | BOSTON COLLEGE | 5564 | NAG 3 2143 | BOSTON UNIVERSITY | 5571 |
| STUDY OF THE SOURCE REGIONS OF CORONAL MASS EJECTIONS USING YOHKOH SXT DATA | | | SONOLUMINESCENCE IN SPACE: THE CRITICAL ROLE OF BUBBLING IN STABILITY AND EMISSION MECHANISMS | | |
| 06/30/1995 - 09/30/1997 | FY98: -\$252 | Total: \$46,055 | 04/10/1998 - 01/08/2002 | FY98: \$100,000 | Total: \$100,000 |
| Prin. Invest.: D F WEBB | | | Prin. Invest.: R G HOLT, R A ROY | | |
| Tech. Officer: HQ/W J WAGNER, HQ/J D BOHLIN | | | Tech. Officer: LARC/N R HALL | | |
| CASE Category: 13 - PHYSICS | | | CASE Category: 13 - PHYSICS | | |
| NAGW 5052 | BOSTON COLLEGE | 5565 | NAG 5 690 | BOSTON UNIVERSITY | 5572 |
| STUDY OF DISCONNECTION OF MAGNETIC FIELDS ASSOCIATED WITH CORONAL MASS EJECTIONS | | | A SOUNDING SOCKET PROGRAM IN EXTREME AND FAR UV INTERFEROMETRY | | |
| 05/17/1996 - 10/31/1997 | FY98: -\$365 | Total: \$48,567 | 04/29/1992 - 01/11/1999 | FY98: \$372,544 | Total: \$2,082,044 |
| Prin. Invest.: D F WEBB | | | Prin. Invest.: S C KAKRABARTI | | |
| Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE | | | Tech. Officer: GSFC/R H PLESS | | |
| CASE Category: 99 - MULTIDISCIPLINARY, OTHER | | | CASE Category: 13 - PHYSICS | | |
| NAG 1 1688 | BOSTON UNIVERSITY | 5566 | NAG 5 1997 | BOSTON UNIVERSITY | 5573 |
| COMPUTATIONAL AEROACOUSTICS OF FLUID-ELASTIC STRUCTURE INTERACTIONS - MY 1/2 | | | LOW MASS STARS IN DARK GLOBULES | | |
| 02/16/1995 - 09/30/1997 | FY98: -\$1,483 | Total: \$74,317 | 06/12/1992 - 06/4/1997 | FY98: \$0 | Total: \$117,148 |
| Prin. Invest.: M S HOWE | | | Prin. Invest.: D P CLEMENS | | |
| Tech. Officer: LARC/J C HARDIN | | | Tech. Officer: GSFC/D WEST | | |
| CASE Category: 49 - ENGINEERING, OTHER | | | CASE Category: 11 - ASTRONOMY | | |
| NAG 1 1712 | BOSTON UNIVERSITY | 5567 | NAG 5 2266 | BOSTON UNIVERSITY | 5574 |
| TESTING AND IMPLEMENTATION OF ADVANCED REYNOLDS STRESS MODELS | | | CLUSTER RAPID IMAGING ELECTRON SPECTROMETER EFFORT | | |
| 03/20/1995 - 03/19/1997 | FY98: -\$2 | Total: \$17,525 | 05/07/1993 - 06/30/1998 | FY98: \$0 | Total: \$598,108 |
| Prin. Invest.: C G SPEZIALE | | | Prin. Invest.: T A FRITZ | | |
| Tech. Officer: LARC/T B GATSKI | | | Tech. Officer: GSFC/M L GOLDSTEIN | | |
| CASE Category: 41 - AERONAUTICAL ENGINEERING | | | CASE Category: 13 - PHYSICS | | |
| NAG 5 2578 | BOSTON UNIVERSITY | 5575 | NAG 5 2578 | BOSTON UNIVERSITY | 5575 |
| GGP POLAR CAMMICE FLIGHT PREPARATION AND I&T PHASE | | | GGP POLAR CAMMICE FLIGHT PREPARATION AND I&T PHASE | | |
| 04/14/1994 - 11/30/1998 | FY98: \$362,000 | Total: \$1,873,354 | 04/14/1994 - 11/30/1998 | FY98: \$362,000 | Total: \$1,873,354 |
| Prin. Invest.: T A FRITZ | | | Prin. Invest.: T A FRITZ | | |
| Tech. Officer: GSFC/M H ACUNA | | | Tech. Officer: GSFC/M H ACUNA | | |
| CASE Category: 13 - PHYSICS | | | CASE Category: 13 - PHYSICS | | |

NAG 5 2643 BOSTON UNIVERSITY **5576**
HIRES DUST IMAGING OF THE NGC 6334 COMPLEX
 07/05/1994 - 07/14/1997 FY98: \$0 Total: \$70,600
Prin. Invest.: J M JACKSON
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3291 BOSTON UNIVERSITY **5577**
MULTIWAVEBAND MONITORING OF THE BRIGHT, VIOLENTLY VARIABLE QUASAR 3C 454.3
 07/17/1996 - 11/30/1997 FY98: \$0 Total: \$30,894
Prin. Invest.: A MARSCHER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3337 BOSTON UNIVERSITY **5578**
BLOCK GRANT FOR ISO FAR-INFRARED SPACE STUDIES
 08/09/1996 - 02/28/1999 FY98: \$0 Total: \$43,500
Prin. Invest.: D P CLEMENS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3384 BOSTON UNIVERSITY **5579**
TOWARD A REFINED UNDERSTANDING OF THE HIGH-ENERGY GAMMA-RAY UNIVERSE
 08/28/1996 - 08/31/1999 FY98: \$95,000 Total: \$165,000
Prin. Invest.: J R MATTOX
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3439 BOSTON UNIVERSITY **5580**
MONITORING CHANGE IN TEMPERATE CONIFEROUS FOREST E COSYSTEMS
 10/07/1996 - 10/31/1998 FY98: \$193,553 Total: \$397,667
Prin. Invest.: C WOODCOCK
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3457 BOSTON UNIVERSITY **5581**
MODELING AND REMOTE SENSING OF RADIATION ENERGY INTERACTIONS AND PHYSIOLOGICAL FUNCTIONING IN
 10/10/1996 - 10/31/1998 FY98: \$0 Total: \$49,845
Prin. Invest.: R B MYNENI
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3458 BOSTON UNIVERSITY **5582**
PHOTOSYNTHETICALLY ACTIVE RADIATION IN THE CURCUMULAR BOREAL FOREST BIOME: ANALYSIS OF AN 11-YEAR
 10/28/1996 - 04/30/1998 FY98: \$0 Total: \$39,746
Prin. Invest.: D DYE
Tech. Officer: GSFC/B N HOLBEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3748 BOSTON UNIVERSITY **5583**
THE MAGNETOSPHERIC MAPPING MISSION
 03/10/1997 - 03/14/1999 FY98: \$0 Total: \$200,000
Prin. Invest.: D E SPENCE
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 3806 BOSTON UNIVERSITY **5584**
TIMING THE GEMINGA PULSAR WITH HIGH-ENERGY GAMMA RAY MULTI-WAVELENGTH STUDY OF THE GAMMA-RAY BLAZER P
 12/13/1996 - 12/14/1998 FY98: \$25,000 Total: \$61,000
Prin. Invest.: J R MATTOX
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3829 BOSTON UNIVERSITY **5585**
AN EXTENDED OBSERVATION OF BLAZAR 3C 279
 02/13/1997 - 02/14/1998 FY98: \$0 Total: \$35,000
Prin. Invest.: A P MARSCHER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3830 BOSTON UNIVERSITY **5586**
A SEARCH FOR PULSED 2-200 KEV EMISSION FROM GEMINGA
 02/11/1997 - 02/14/1999 FY98: \$0 Total: \$11,000
Prin. Invest.: J R MATTOX
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3839 BOSTON UNIVERSITY **5587**
FREQUENCY STRATIFICATION OF THE NONTHERMAL EMISSION
 02/24/1997 - 02/28/1999 FY98: \$95,600 Total: \$192,500
Prin. Invest.: A P MARSCHER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3868 BOSTON UNIVERSITY **5588**
CRRES FIELD AND PLASMA DATA
 01/30/1997 - 01/31/1998 FY98: \$0 Total: \$12,789
Prin. Invest.: W HUGHES
Tech. Officer: GSFC/J WILLETT
CASE Category: 13 - PHYSICS

NAG 5 3991 BOSTON UNIVERSITY **5589**
VITAMIN D RADIATION FROM SUPPLEMENT OR LIGHT
 02/26/1997 - 05/14/1999 FY98: \$205,408 Total: \$402,916
Prin. Invest.: M F HOLICK
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3999 BOSTON UNIVERSITY **5590**
A SILICON ANODE DETECTOR WITH INTEGRATED ELECTRONICS
 03/06/1997 - 02/28/1999 FY98: \$167,000 Total: \$327,000
Prin. Invest.: D CHAKRABARTI
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4245 BOSTON UNIVERSITY **5591**
MONITORING OF TWO BLAZARS WITH FREQUENCY-SIMULTANEOUS MULTIWAVEBAND MONITORING OF THE PROMINENT BLAZER
 04/07/1997 - 04/14/1998 FY98: \$0 Total: \$38,979
Prin. Invest.: A MARSCHER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4246 BOSTON UNIVERSITY **5592**
USE OF ENERGETIC NEUTRAL ATOMS AS DIAGNOSTICS OF M PRO-
CESSES
 03/26/1997 - 04/30/2001 FY98: \$35,000 Total: \$86,500
Prin. Invest.: D MENDILLO
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4247 BOSTON UNIVERSITY **5593**
GLOBAL MAGNETIC GEOMETRY OF THE OPEN MAGNETOSPHERE ORI-
ENTATIONS
 03/26/1997 - 04/30/1998 FY98: \$0 Total: \$73,855
Prin. Invest.: D L SISCOE
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4273 BOSTON UNIVERSITY **5594**
SEPARATING SPATIAL AND TEMPORAL VARIATIONS OF THE NEARLY
COLOCATED SATELLITES
 04/04/1997 - 04/30/1999 FY98: \$36,952 Total: \$102,632
Prin. Invest.: D E SPENCE
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4426 BOSTON UNIVERSITY **5595**
CONTINUED STUDIES OF OUTER SOLAR SYSTEM ATMOSPHERE
 04/17/1997 - 08/31/1999 FY98: \$71,670 Total: \$156,670
Prin. Invest.: D V YELLE
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4660 BOSTON UNIVERSITY **5596**
TRANSIENT FLOWS IN THE MAGNETOSPHERIC CUSP: GROUND CORRELA-
TION
 06/05/1997 - 05/31/1999 FY98: \$83,670 Total: \$153,670
Prin. Invest.: D HUGHES
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4682 BOSTON UNIVERSITY **5597**
REMOTE SENSING OF MAGNETOSPHERIC STRUCTURE USING (PARTICLE
AND FIELD DATA
 06/10/1997 - 08/31/1998 FY98: \$0 Total: \$42,025
Prin. Invest.: D E SPENCE
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 - PHYSICS

NAG 5 4707 BOSTON UNIVERSITY **5598**
USE OF NASA'S GLOBAL POSITIONING SYSTEM (GPS) MONI STUDIES OF
IONOSPHERIC STRUCTURE AND VARIABILITY
 06/11/1997 - 05/31/1999 FY98: \$33,750 Total: \$111,750
Prin. Invest.: D MENDILLO
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4708 BOSTON UNIVERSITY **5599**
MAGNETIC TOPOLOGY OF HELIOSPHERIC STRUCTURES
 06/23/1997 - 03/31/1998 FY98: \$0 Total: \$54,000
Prin. Invest.: D CROOKER
Tech. Officer: GSFC/M FORMAN
CASE Category: 11 - ASTRONOMY

NAG 5 4850 BOSTON UNIVERSITY **5600**
POLAR-WIDE GEOPHYSICAL PRODUCTS DERIVED FROM AVHRR
 07/25/1997 - 06/30/1998 FY98: \$0 Total: \$11,073
Prin. Invest.: C KEY
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4903 BOSTON UNIVERSITY **5601**
DOCUMENTING, UNDERSTANDING, AND PREDICTING THE AG RADIATION
FLUX FOR S-EBA
 06/20/1997 - 06/14/1999 FY98: \$50,000 Total: \$92,115
Prin. Invest.: C R KEY
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4922 BOSTON UNIVERSITY **5602**
SUPPORT FOR INTERNATIONAL CONFERENCE ON STRONGLY C S
 07/07/1997 - 06/31/1998 FY98: \$0 Total: \$6,956
Prin. Invest.: F J KALMAN
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4991 BOSTON UNIVERSITY **5603**
A NEW SCIENTIFIC USE OF TOTAL ECLIPSES OF THE MOON GENERATION
AND LOSS OF ATMOSPHERES PRIMITIVE BODI
 06/27/1997 - 06/30/1999 FY98: \$40,000 Total: \$80,000
Prin. Invest.: C MENDILLO
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 5137 BOSTON UNIVERSITY **5604**
SPECTRE: STUDENT-RUN PROGRAM FOR EXOATMOSPHERIC COLLECT-
ING TECHNOLOGIES & ROCKET EXPERIMENTS
 04/14/1997 - 01/15/1999 FY98: -\$1,805 Total: \$33,195
Prin. Invest.: S CHAKRABARTI
Tech. Officer: GSFC/W JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6065 BOSTON UNIVERSITY **5605**
IDENTIFICATION OF LINKED VEGETATION INDEX AND SST PREDICTION OF
PLANT PRODUCTIVITY FROM CLIMATE FORE
 07/28/1997 - 06/30/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: F MYNENI
Tech. Officer: GSFC/C TUCKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6126 BOSTON UNIVERSITY **5606**
EMPIRICAL MODELING OF THE INNER MAGNETOSPHERIC PLASMAS TO
MAGNETIC EQUILIBRIA STRUCTURE AND FIELDS
 08/04/1997 - 06/30/1999 FY98: \$0 Total: \$50,001
Prin. Invest.: C SPENCE
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6214 BOSTON UNIVERSITY **5607**
MODELING AND FORECASTING EFFECTS OF LAND-USE CHANGE
SOCIOECONOMIC DRIVERS
 08/18/1997 - 02/31/1999 FY98: \$111,050 Total: \$278,492
Prin. Invest.: D K KAUFMANN, NONE
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

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|---------------------------------------------------------------------------------------------------------------|-------------------|------------------|
| NAG 5 6245 | BOSTON UNIVERSITY | 5608 |
| A NOVEL POLY-ETALON FABRY-PEROT SPECTROMETER FOR P | | |
| 08/19/1997 - 07/31/1998 | FY98: \$0 | Total: \$117,019 |
| Prin. Invest.: D B KERR | | |
| Tech. Officer: GSFC/B CAMPBELL | | |
| CASE Category: 99 - MULTI INTERDISCIPL, OTHER | | |
| NAG 5 6335 | BOSTON UNIVERSITY | 5609 |
| XTE AO2 - A MULTIWAVELENGTH STUDY OF THE BLAZAR PKS 1622-297 | | |
| 10/02/1997 - 09/30/1999 | FY98: \$15,000 | Total: \$15,000 |
| Prin. Invest.: J MATTOX | | |
| Tech. Officer: GSFC/J SWANK | | |
| CASE Category: 11 - ASTRONOMY | | |
| NAG 5 6540 | BOSTON UNIVERSITY | 5610 |
| CENTER FOR EXCELLENCE IN REMOTE SENSING AT BOSTON UNIVERSITY | | |
| 10/21/1997 - 09/30/1998 | FY98: \$380,000 | Total: \$380,000 |
| Prin. Invest.: C E WOODCOCK | | |
| Tech. Officer: GSFC/M Y WEI | | |
| CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | | |
| NAG 5 6554 | BOSTON UNIVERSITY | 5611 |
| LABORATORY STUDIES IN UV AND EUV SOLAR PHYSICS | | |
| 10/24/1997 - 05/31/2000 | FY98: \$139,521 | Total: \$139,521 |
| Prin. Invest.: D H PARKINSON | | |
| Tech. Officer: GSFC/W J WAGNER | | |
| CASE Category: 59 - LIFE SCIENCE, OTHER | | |
| NAG 5 6658 | BOSTON UNIVERSITY | 5612 |
| ULYSSES DATA ANALYSIS: MAGNETIC TOPOLOGY OF HELIO SPHERIC STRUCTURES | | |
| 11/20/1997 - 12/31/1998 | FY98: \$65,477 | Total: \$65,477 |
| Prin. Invest.: N CROOKER | | |
| Tech. Officer: GSFC/J LING | | |
| CASE Category: 11 - ASTRONOMY | | |
| NAG 5 6716 | BOSTON UNIVERSITY | 5613 |
| THERMAL AND HYDROLOGIC SIGNATURE OF SOIL CONTROLS ON EVAPORATION: A COMBINED ENERGY AND WATER | | |
| 12/10/1997 - 06/30/1999 | FY98: \$148,814 | Total: \$148,814 |
| Prin. Invest.: G SALVUCCI | | |
| Tech. Officer: GSFC/M WEI | | |
| CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | | |
| NAG 5 6755 | BOSTON UNIVERSITY | 5614 |
| ANALYSIS AND MODELING OF COMET HALE-BOPP'S MULTIPLE TAILS | | |
| 12/16/1997 - 02/28/1999 | FY98: \$47,000 | Total: \$47,000 |
| Prin. Invest.: M MENDILLO | | |
| Tech. Officer: GSFC/R BEEBE | | |
| CASE Category: 11 - ASTRONOMY | | |
| NAG 5 6926 | BOSTON UNIVERSITY | 5615 |
| THE CLUSTER II RAPIDIES EFFORT AT BOSTON UNIVERSITY-PRE-LAUNCH ACTIVITY | | |
| 02/05/1998 - 12/31/1998 | FY98: \$90,620 | Total: \$90,620 |
| Prin. Invest.: T FRITZ | | |
| Tech. Officer: GSFC/L CHRISTENSEN | | |
| CASE Category: 42 - ASTRONAUTICAL ENGR | | |
| NAG 5 7049 | BOSTON UNIVERSITY | 5616 |
| WIND DATA ANALYSIS: GLOBAL HELIOSPHERIC STRUCTURE S | | |
| 02/26/1998 - 03/31/2001 | FY98: \$23,333 | Total: \$23,333 |
| Prin. Invest.: N U CROOKER | | |
| Tech. Officer: GSFC/J LING | | |
| CASE Category: 11 - ASTRONOMY | | |
| NAG 5 7217 | BOSTON UNIVERSITY | 5617 |
| GEOMETRIC OPTICAL MODELING OF DIRECTIONAL THERMAL RADIANCE FOR IMPROVEMENT OF LAND SURFACE TEMPERATURE | | |
| 04/17/1998 - 04/14/2001 | FY98: \$95,304 | Total: \$95,304 |
| Prin. Invest.: X LI | | |
| Tech. Officer: GSFC/D WICKLAND | | |
| CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | | |
| NAG 5 7218 | BOSTON UNIVERSITY | 5618 |
| MACHINE LEARNING TO IMPROVE LAND COVER CLASSIFICATIONS FROM MULTISENSOR AND MULTITEMPORAL DATA | | |
| 04/09/1998 - 04/14/2001 | FY98: \$27,073 | Total: \$27,073 |
| Prin. Invest.: M FRIEDL | | |
| Tech. Officer: GSFC/D E WICKLAND | | |
| CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | | |
| NAG 5 7323 | BOSTON UNIVERSITY | 5619 |
| A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS | | |
| 04/24/1998 - 04/30/1999 | FY98: \$9,970 | Total: \$9,970 |
| Prin. Invest.: A P MARSCHER | | |
| Tech. Officer: GSFC/J P NORRIS | | |
| CASE Category: 11 - ASTRONOMY | | |
| NAG 5 7331 | BOSTON UNIVERSITY | 5620 |
| XTE PROPOSAL MULTIWAVEBAND MONITORING OF THE RADIO GALAXY 3C 120 | | |
| 04/24/1998 - 04/30/1999 | FY98: \$10,500 | Total: \$10,500 |
| Prin. Invest.: A MARSCHER | | |
| Tech. Officer: GSFC/J SWANK | | |
| CASE Category: 11 - ASTRONOMY | | |
| NAG 5 7338 | BOSTON UNIVERSITY | 5621 |
| XTE PROPOSAL - CONTINUED RXTE OBSERVATIONS OF THREE BLAZARS | | |
| 04/24/1998 - 04/30/1999 | FY98: \$7,325 | Total: \$7,325 |
| Prin. Invest.: A MARSCHER | | |
| Tech. Officer: GSFC/J SWANK | | |
| CASE Category: 11 - ASTRONOMY | | |
| NAG 5 7452 | BOSTON UNIVERSITY | 5622 |
| SIMULATIONS AND THEORY OF THE FARLEY-BUNEMAN INSTABILITY IN THE E-REGION IONOSPHERE | | |
| 07/10/1998 - 08/31/2000 | FY98: \$42,640 | Total: \$42,640 |
| Prin. Invest.: M OPPENHEIM | | |
| Tech. Officer: GSFC/M MELLOTT | | |
| CASE Category: 13 - PHYSICS | | |
| NAG 5 7472 | BOSTON UNIVERSITY | 5623 |
| ADVANCED DATA SETS FROM FUSION OF AVHRR AND SEAWIFS DATA | | |
| 06/16/1998 - 06/30/1999 | FY98: \$35,163 | Total: \$35,163 |
| Prin. Invest.: R MYNENI | | |
| Tech. Officer: GSFC/C TUCKER | | |
| CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | | |

NAG 5 7677 BOSTON UNIVERSITY **5624**
STUDIES BY THE CAMMICE INVESTIGATION TEAM DURING THE EXTENDED MISSION OF GGSPOL
 09/18/1998 - 09/30/1999 FY98: \$565,000 Total: \$565,000
Prin. Invest.: T FRITZ
Tech. Officer: GSFC/R HOFFMAN
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1522 BOSTON UNIVERSITY **5625**
DIRECT USE OF SATELLITE REMOTE SENSING IN THE ESTIMATION OF HYDROLOGIC TRANSPORTS.
 05/22/1998 - 04/30/2001 FY98: \$41,861 Total: \$41,861
Prin. Invest.: G D SALVUCCI
Tech. Officer: MSFC/J ARNOLD
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 1627 BOSTON UNIVERSITY **5626**
MAGNETOSPHERIC SUBSTORMS
 03/13/1989 - 09/30/1997 FY98: \$0 Total: \$477,285
Prin. Invest.: W J HUGHES
Tech. Officer: HQ/M M MELLOTT, HQ/T W PERRY
 CASE Category: 13 - PHYSICS

NAGW 4024 BOSTON UNIVERSITY **5627**
SPIF THE SOUTH PLE IMAGING FABRY PEROT
 05/24/1994 - 09/30/1997 FY98: \$0 Total: \$103,151
Prin. Invest.: J M JACKSON
Tech. Officer: HQ/L J CAROFF, HQ/L J CAROFF
 CASE Category: 11 - ASTRONOMY

NAGW 4488 BOSTON UNIVERSITY **5628**
GLOBAL MAGNETIC GEOMETRY
 05/16/1995 - 04/30/1998 FY98: -\$213 Total: \$140,922
Prin. Invest.: G L SISCOE
Tech. Officer: HQ/R A HOFFMAN, HQ/J D BOHLIN
 CASE Category: 13 - PHYSICS

NAGW 4537 BOSTON UNIVERSITY **5629**
EMPIRICAL MODELING OF THE INNER MAGNETOSPHERIC PLASMA ENVIRONMENT: APPLICATIONS TO MAGNETIC EQ. ST
 06/20/1995 - 06/30/1998 FY98: -\$10 Total: \$68,717
Prin. Invest.: H E SPENCE
Tech. Officer: HQ/R A HOFFMAN, HQ/J D BOHLIN
 CASE Category: 13 - PHYSICS

NAGW 4571 BOSTON UNIVERSITY **5630**
MAGNETIC TOPOLOGY OF HELIOSPHERIC STRUCTURES
 06/08/1995 - 03/31/1997 FY98: -\$23 Total: \$98,977
Prin. Invest.: N U CROOKER
Tech. Officer: HQ/W V JONES, HQ/J D BOHLIN
 CASE Category: 13 - PHYSICS

NAGW 4622 BOSTON UNIVERSITY **5631**
USE OF ENERGETIC NEUTRAL ATOMS AS DIAGNOSTICS OF MAGNETOSPHERIC PROCESSES
 08/02/1995 - 09/30/1997 FY98: -\$3 Total: \$97,897
Prin. Invest.: M MENDILLO
Tech. Officer: HQ/R A HOFFMAN, HQ/J D BOHLIN
 CASE Category: 13 - PHYSICS

NAGW 4917 BOSTON UNIVERSITY **5632**
A NEW SCIENTIFIC USE OF TOTAL ECLIPSES OF THE MOON: STUDIES OF THE GENERATION AND LOSS OF ATMOSPHERE
 02/05/1996 - 09/30/1997 FY98: -\$498 Total: \$39,502
Prin. Invest.: M MENDILLO
Tech. Officer: HC/E BARKER, HQ/J RAHE
 CASE Category: 13 - PHYSICS

NAGW 4923 BOSTON UNIVERSITY **5633**
CONTINUED STUDIES OF ATMOSPHERIC THERMAL STRUCTURE IN THE OUTER SOLAR SYSTEM
 03/07/1996 - 08/31/1997 FY98: \$0 Total: \$173,579
Prin. Invest.: N AVAILABLE
Tech. Officer: HQ N AVAILABLE
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 5030 BOSTON UNIVERSITY **5634**
IMPLEMENTATION OF THE BOSTON UNIV SPACE PHYSICS ACQUISITION CENTER
 04/11/1996 - 09/30/1997 FY98: \$0 Total: \$15,000
Prin. Invest.: H SPENCE
Tech. Officer: HQ/J B WILLETT
 CASE Category: 13 - PHYSICS

NAGW 5103 BOSTON UNIVERSITY **5635**
A NOVEL POLY ETALON FABRY PEROT SPECTROMETER FOR PLANETARY RESEARCH
 06/11/1996 - 09/30/1997 FY98: \$0 Total: \$109,000
Prin. Invest.: R B FERR
Tech. Officer: HQ/ KOSTIUK, HQ/H C BRINTON
 CASE Category: 19 - MULTIDISCIPLINARY, OTHER

NAGW 5138 BOSTON UNIVERSITY **5636**
USE OF NASA'S GLOBAL POSITIONING SYSTEM (GPS) MONITORING NETWORK FOR STUDIES OF IONOSPHERIC STRUCTURE
 07/31/1996 - 09/30/1997 FY98: \$0 Total: \$75,000
Prin. Invest.: M MENDILLO
Tech. Officer: HQ/M M MELLOTT, HQ/G L WITHBROE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 5163 BOSTON UNIVERSITY **5637**
RECOVERY OF THE DATA SET ASSOCIATED WITH THE ATS-6 LOW ENERGY PROTON EXPERIMENT
 08/23/1996 - 09/30/1997 FY98: \$0 Total: \$11,725
Prin. Invest.: N AVAILABLE, NONE
Tech. Officer: HQ/J B WILLETT
 CASE Category: 13 - PHYSICS

NAGW 5255 BOSTON UNIVERSITY **5638**
THERMAL AND HYDROLOGIC SIGNATURES OF SOIL CONTROLS ON EVAPORATION
 11/18/1996 - 12/31/1997 FY98: \$0 Total: \$148,030
Prin. Invest.: G SALVUCCI
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NAS 5 31369 BOSTON UNIVERSITY 5639 MODERATE RESOLUTION IMAGING SPECTROMETER INVESTIGATION - LAND COVER CHANGES 12/30/1991 - 12/14/2001 FY98: \$658,113 Total: \$3,335,303 Prin. Invest.: W STRAHLER Tech. Officer: GSFC/H OSEROFF CASE Category: 31 - ATMOSPHERIC SCIENCE | NAG 5 6100 BRANDEIS UNIVERSITY 5647 THE GRAYBIEL LABORATORY ROTATING ROOM RESEARCH FACILITY 10/02/1997 - 08/31/1998 FY98: \$260,755 Total: \$260,755 Prin. Invest.: D LACKNER Tech. Officer: GSFC/V SCHNEIDER CASE Category: 59 - LIFE SCIENCE, OTHER |
| NAS 5 96061 BOSTON UNIVERSITY 5640 MODIS 09/27/1996 - 12/14/2001 FY98: \$270,000 Total: \$623,000 Prin. Invest.: R B MYNENI Tech. Officer: GSFC/D TOLL CASE Category: 31 - ATMOSPHERIC SCIENCE | NAG 9 1037 BRANDEIS UNIVERSITY 5648 MOTOR ADAPTATION TO CORIOLIS AND CONTACT 07/01/1998 - 06/30/1999 FY98: \$93,000 Total: \$93,000 Prin. Invest.: J LACKNER Tech. Officer: JSC/C SAWIN CASE Category: 59 - LIFE SCIENCE, OTHER |
| NAS 5 97147 BOSTON UNIVERSITY 5641 DATA ANALYSIS FOR CEPPAD 02/28/1997 - 12/31/1998 FY98: \$199,538 Total: \$413,538 Prin. Invest.: H SPENCE Tech. Officer: GSFC/R HOFFMAN CASE Category: 11 - ASTRONOMY | NAG 9 1038 BRANDEIS UNIVERSITY 5649 ADAPTATION IN ARTIFICIAL GRAVITY ENVIROMENTS 06/25/1998 - 06/30/1999 FY98: \$51,000 Total: \$51,000 Prin. Invest.: J LACKNER Tech. Officer: JSC/C SAWIN CASE Category: 59 - LIFE SCIENCE, OTHER |
| NGT 51333 BOSTON UNIVERSITY 5642 GRADUATE STUDENT RESEARCHERS PROGRAM 07/26/1994 - 12/31/1997 FY98: \$0 Total: \$66,000 Prin. Invest.: S CHAKRABARTI Tech. Officer: HQ/D HOLLAND CASE Category: 11 - ASTRONOMY | NAGW 4374 BRANDEIS UNIVERSITY 5650 MOTOR ADAPTATION TO CORIOLIS AND CONTACT FORCES 03/31/1995 - 08/14/1997 FY98: \$0 Total: \$392,170 Prin. Invest.: J R LACKNER Tech. Officer: HQ/F SULZMAN CASE Category: 59 - LIFE SCIENCE, OTHER |
| NGT 1 52199 BOSTON UNIVERSITY 5643 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 07/20/1998 - 06/30/1999 FY98: \$10,000 Total: \$10,000 Prin. Invest.: K P HARLING, B DI BARTOLO Tech. Officer: LARC/J C BARNES, LARC/N P BARNES CASE Category: 13 - PHYSICS | NAGW 4375 BRANDEIS UNIVERSITY 5651 ADAPTATION IN ARTIFICIAL GRAVITY ENVIRONMENTS 03/31/1995 - 04/14/1998 FY98: -\$49,600 Total: \$545,567 Prin. Invest.: J R LACKNER Tech. Officer: HQ/F SULZMAN CASE Category: 59 - LIFE SCIENCE, OTHER |
| NGT 5 50171 BOSTON UNIVERSITY 5644 TOMOGRAPHIC IMAGING OF THE HOT INTERSTELLAR MEDIA USING ULTRAVIOLETSPECTROSCOPY 06/03/1998 - 06/30/2001 FY98: \$22,000 Total: \$22,000 Prin. Invest.: S CHAKRABARTI Tech. Officer: HQ/A NURRIDIN CASE Category: 49 - ENGINEERING, OTHER | NAGW 4733 BRANDEIS UNIVERSITY 5652 GRAYBIEL LABORATORY ROTATING ROOM RESEARCH FACILITY 09/15/1995 - 08/31/1997 FY98: \$0 Total: \$504,295 Prin. Invest.: J R LACKNER Tech. Officer: HQ/V SCHNEIDER CASE Category: 59 - LIFE SCIENCE, OTHER |
| NAG 5 4836 BRANDEIS UNIVERSITY 5645 MOTOR ADAPTATION TO CORIOLIS AND CONTACT FORCES 07/23/1997 - 04/30/1998 FY98: \$0 Total: \$200,257 Prin. Invest.: J LACKNER Tech. Officer: GSFC/V SCHNEIDER CASE Category: 59 - LIFE SCIENCE, OTHER | NGT 51658 BRANDEIS UNIVERSITY 5653 GRAD STUDENT RESEARCH PROGRAM 08/05/1996 - 07/30/1997 FY98: \$0 Total: \$22,000 Prin. Invest.: J WARDLE Tech. Officer: HQ/D HOLLAND CASE Category: 13 - PHYSICS |
| NAG 5 6056 BRANDEIS UNIVERSITY 5646 "ADAPTATION IN ARTIFICIAL GRAVITY ENVIRONMENTS" 07/28/1997 - 08/14/1998 FY98: -\$25,600 Total: \$239,400 Prin. Invest.: J LACKNER Tech. Officer: GSFC/V SCHNEIDER CASE Category: 59 - LIFE SCIENCE, OTHER | NGT 5 50136 BRANDEIS UNIVERSITY 5654 DOPPLER FACTORS AND PROPER MOTIONS IN SUPERLUMINAL 09/11/1997 - 07/31/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: J F WARDLE Tech. Officer: HQ/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAG 5 6056 BRANDEIS UNIVERSITY 5646 "ADAPTATION IN ARTIFICIAL GRAVITY ENVIRONMENTS" 07/28/1997 - 08/14/1998 FY98: -\$25,600 Total: \$239,400 Prin. Invest.: J LACKNER Tech. Officer: GSFC/V SCHNEIDER CASE Category: 59 - LIFE SCIENCE, OTHER | NAG 8 1011 BRIDGEWATER STATE COLLEGE 5655 JOVE 11/19/1993 - 08/31/1998 FY98: \$0 Total: \$87,000 Prin. Invest.: J SULONOWSKI, R ENRIGHT Tech. Officer: MSFC/F SIX CASE Category: 31 - ATMOSPHERIC SCIENCE |

NAG 5 6046 CLARK UNIVERSITY 5656
LAND-USE COVER IN THE SOUTHERN YUCATAN PENINSULA R
 07/31/1997 - 07/31/1999 FY98: \$153,750 Total: \$478,750
Prin. Invest.: B TURNER
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30179 CLARK UNIVERSITY 5657
GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/01/1993 - 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J R EASTMAN
Tech. Officer: HQ/G ASRAR, HQ/D M BUTLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30344 CLARK UNIVERSITY 5658
GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/08/1995 - 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: R E KASPERSON
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30032 CLARK UNIVERSITY 5659
WEST SIBERIAN PEATLAND DYNAMICS IN RELATION TO THE
 10/23/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: S HERWITZ
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30056 CLARK UNIVERSITY 5660
THIRD YEAR FUNDING: THE PATTERN AND CONDITIONS FO OVER THE HIMALAYAS
 09/06/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: R E KASPERSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30061 CLARK UNIVERSITY 5661
DIAGNOSIS OF SPATIAL AND TEMPORAL PATTERNS OF DRY LAND-ATMOSPHERE WATER EXCHANGE IN THE TROPICAL SAV
 09/10/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: L LEWIS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30129 CLARK UNIVERSITY 5662
IDENTIFYING THE BIOPHYSICAL & HUMAN DIMENSIONS OF LAND DEGRADATION IN THE SEMI-ARID KAROO, SOUTH AFR
 10/08/1997 - 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: B TURNER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30147 CLARK UNIVERSITY 5663
IDENTIFYING THE LAND-MANAGEMENT INSTITUTIONS AND LANDSCAPE PATTERNS GOVERNING SAVANNA FIRE REGI
 08/31/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: B L TURNER, 11
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30153 CLARK UNIVERSITY 5664
LINKING REMOTE SENSING AND SOCIAL ANALYSIS: CAUSAL INFLUENCES OF TRANSITIONING ECONOMIES ON
 08/28/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: B L TURNER, 11, HAAN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1212 HAMPSHIRE COLLEGE 5665
ENERGETIC S-RAY IMAGING SURVEY TELESCOPE
 10/06/1995 - 09/30/1998 FY98: \$0 Total: \$111,209
Prin. Invest.: J E GRINDLAY
Tech. Officer: M JFC/M NEIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1305 HARVARD UNIVERSITY 5666
HIGH ALTITUDE AIRCRAFT AND BALLOON-BORNE OBSERVATION IN EARTH'S STRATOSPHERE
 06/28/1991 - 12/31/1998 FY98: \$1 Total: \$12,557,126
Prin. Invest.: J G ANDERSON
Tech. Officer: LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1759 HARVARD UNIVERSITY 5667
THE ORIGIN OF TROPOSPHERIC OZONE OVER THE SOUTH PACIFIC: ANALYSIS OF PEM-TROPIC DATA
 09/25/1995 - 09/10/1998 FY98: \$0 Total: \$483,962
Prin. Invest.: D J JACOB, D A LOGAN
Tech. Officer: LARC/J M HOELL, JR, LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1849 HARVARD UNIVERSITY 5668
CLOUDS AND WATER VAPOR IN THE CLIMATE SYSTEM: REMOTELY PILOATED AIRCRAFT AND SATELLITES
 06/26/1996 - 02/8/1999 FY98: \$1 Total: \$2,123,018
Prin. Invest.: J G ANDERSON, R M GOODY
Tech. Officer: LARC/C L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1909 HARVARD UNIVERSITY 5669
THREE-DIMENSIONAL STUDY OF THE FACTORS CONTROLLING THE DISTRIBUTION OF CZONE AND RELATED SPECIES IN
 04/01/1997 - 03/31/1999 FY98: \$235,000 Total: \$460,000
Prin. Invest.: D J JACOB
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2007 HARVARD UNIVERSITY 5670
IN-SITU DETECTION OF OH, HO2, ClO, BRO, NO2, ClONO2, H2O, AND O3 FROM THE ER-2
 02/18/1998 - 12/31/1998 FY98: \$1,899,843 Total: \$1,899,843
Prin. Invest.: J G ANDERSON
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2025 HARVARD UNIVERSITY **5671**
**ANALYSIS OF INTERANNUAL AND LONG TERM VARIATIONS OF STRATO-
 SPHERIC TRANSPORT OF OZONE AND DEVELOP-**
 03/19/1998 – 01/31/1999 FY98: \$140,000 Total: \$140,000
Prin. Invest.: S C WOFSY
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 2 974 HARVARD UNIVERSITY **5672**
**STRATOSPHERIC TRACERS OF ATMOSPHERIC TRANSPORT (ST RAT) MIS-
 SION SCIENTIST**
 03/24/1995 – 12/31/1998 FY98: \$0 Total: \$141,690
Prin. Invest.: S C WOFSY
Tech. Officer: ARC/E P CONDON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 2 1100 HARVARD UNIVERSITY **5673**
**PHOTOCHEMISTRY OF THE UPPER TROPOSPHERE & LOWERMOS T
 STRATOSPHERE AT NORTHERN MIDLATITUDES, & THE....**
 01/09/1997 – 01/31/1999 FY98: \$100,171 Total: \$200,059
Prin. Invest.: D J JACOB
Tech. Officer: ARC/E P CONDON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 3 1793 HARVARD UNIVERSITY **5674**
THE EXTENSIONAL OF NON-NEWTONIAN MATERIALS
 11/06/1995 – 11/30/2000 FY98: \$0 Total: \$381,000
Prin. Invest.: G H MCKINLEY
Tech. Officer: LERC/F P CHIARAMONTE
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 5 2253 HARVARD UNIVERSITY **5675**
**EDDY CORRELATION FLUX MEASUREMENTS OF CO2, O3, AND NOY FOR
 BOREAS**
 04/30/1993 – 02/28/1998 FY98: -\$80,000 Total: \$1,106,261
Prin. Invest.: S C WOFSY
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 2688 HARVARD UNIVERSITY **5676**
**ASSESSMENT OF THE EFFECTS OF SUBSONIC AIRCRAFT ON OZONE
 USING A THREE DIMENSIONAL MODEL**
 10/07/1994 – 04/15/1998 FY98: \$0 Total: \$768,890
Prin. Invest.: D J JACOB
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2971 HARVARD UNIVERSITY **5677**
**INVESTIGATIONS OF THE EARTH'S MAIN MAGNETIC FIELD AND THE
 INTERIOR OF THE EARTH**
 06/16/1995 – 06/30/1999 FY98: \$0 Total: \$150,288
Prin. Invest.: J BLOXAM
Tech. Officer: GSFC/P TAYLOR
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3085 HARVARD UNIVERSITY **5678**
GAS DYNAMICS AND THE FORMATION OF GALAXIES AND QUARSARS
 10/05/1995 – 10/14/1998 FY98: \$80,000 Total: \$240,000
Prin. Invest.: A LOEB
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3256 HARVARD UNIVERSITY **5679**
**COMPACT OBJECTS AND BINARIES IN GLOBULAR CLUSTERS AND THE
 GALAXY**
 07/15/1996 – 09/30/1998 FY98: \$72,100 Total: \$141,080
Prin. Invest.: J GRINDLAY
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3298 HARVARD UNIVERSITY **5680**
**X-RAY SPECTRAL AND TEMPORAL STUDIES OF THE ULTRA C OMPACT
 SYSTEM X1916-05**
 08/09/1996 – 02/14/1998 FY98: \$0 Total: \$19,600
Prin. Invest.: J GRINDLAY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3516 HARVARD UNIVERSITY **5681**
A GENERIC MODEL FOR GAMMA RAY BURSTS: THEORY AND D
 11/13/1996 – 11/14/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: R NARAYAN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3553 HARVARD UNIVERSITY **5682**
**AN INVESTIGATION OF THE COUPLING BETWEEN TROPOSPHE RIC
 OZONE, SULFATE AEROSOLS AND CLIMATE.....**
 12/05/1996 – 12/14/1998 FY98: \$317,000 Total: \$654,000
Prin. Invest.: D JACOB
Tech. Officer: GSFC/D RIND
CASE Category: 11 – ASTRONOMY

NAG 5 3564 HARVARD UNIVERSITY **5683**
MAPPING MAGNETIC FIELDS IN THE ISM
 01/14/1997 – 01/14/1999 FY98: \$0 Total: \$48,000
Prin. Invest.: A GOODMAN, I LUU
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3645 HARVARD UNIVERSITY **5684**
EVOLUTION OF PROTEROZOIC MICROORGANISMS AND ENVIRO
 03/05/1997 – 11/30/2000 FY98: \$89,017 Total: \$170,527
Prin. Invest.: D H KNOLL
Tech. Officer: GSFC/M MEYER
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3695 HARVARD UNIVERSITY **5685**
LINERS & LOW LUMINOSITY AGN IN THE ROSAT DATABASE
 07/15/1997 – 07/30/1997 FY98: -\$68,100 Total: \$0
Prin. Invest.: M S ELVIS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3709 HARVARD UNIVERSITY **5686**
**DEVELOPMENT OF AN ULTRA SENSITIVE FAR INFRARED REFRIGERATOR
 INTEGRATED ON A SINGLE CHIP**
 02/12/1997 – 02/28/1999 FY98: \$150,000 Total: \$300,000
Prin. Invest.: M NAHUM
Tech. Officer: GSFC/D HOLLAND
CASE Category: 11 – ASTRONOMY

NAG 5 3808 HARVARD UNIVERSITY **5687**
STUDIES OF BATSE TRANSIENTS AND BLACK HOLE X-RAY B HARD X-RAY
EMISSION FROM X-RAY BURSTERS \$7017.00
 12/14/1996 – 10/31/1998 FY98: \$10,004 Total: \$31,871
Prin. Invest.: J E GRINDLAY
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3979 HARVARD UNIVERSITY **5688**
THEORETICAL STUDIES OF ATMOSPHERIC CHEMISTRY AND T STRATO-
SPHERE
 03/05/1997 – 01/31/1998 FY98: \$0 Total: \$195,000
Prin. Invest.: S C WOFSY
Tech. Officer: GSFC/J A KAYE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4053 HARVARD UNIVERSITY **5689**
WHERE DOES THE POWER LAW BREAK IN X-RAY BUSTERS?
 03/11/1997 – 03/14/1999 FY98: \$0 Total: \$23,100
Prin. Invest.: J E GRINDLAY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4062 HARVARD UNIVERSITY **5690**
IS THERE A COSMOLOGICAL CONSTANT?
 03/18/1997 – 03/31/1999 FY98: \$43,200 Total: \$86,400
Prin. Invest.: C S KOCHANKE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4132 HARVARD UNIVERSITY **5691**
A SEARCH FOR 23RD-MAGNITUDE KUIPER BELT COMETS
 03/13/1997 – 05/31/1999 FY98: \$14,583 Total: \$49,583
Prin. Invest.: D X SASSELOV
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4174 HARVARD UNIVERSITY **5692**
PALEOSOLS AS INDICATORS OF ATMOSPHERIC EVOLUTION
 03/24/1997 – 09/30/1999 FY98: \$124,068 Total: \$229,169
Prin. Invest.: D D HOLLAND
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 4216 HARVARD UNIVERSITY **5693**
CCD PHOTOMETRY STUDY OF KUIPER BELT OBJECTS
 04/09/1997 – 02/28/1999 FY98: \$39,389 Total: \$79,417
Prin. Invest.: D X SASSELOV
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 – ASTRONOMY

NAG 5 4302 HARVARD UNIVERSITY **5694**
CROSS SECTION MEASUREMENTS FOR SOLAR COSMIC RAY ST
 04/12/1997 – 06/30/2001 FY98: \$21,667 Total: \$87,394
Prin. Invest.: D SISTERSON
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4348 HARVARD UNIVERSITY **5695**
ABSOLUTE TRANSMISSION PROBABILITIES FOR LINES IN THE ASTROPHYS-
ICAL ATOMS, MOLECULES AND IONS
 04/17/1997 – 12/31/1998 FY98: \$79,000 Total: \$165,475
Prin. Invest.: W F PARKINSON
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 4430 HARVARD UNIVERSITY **5696**
ISOTOPIC STUDIES OF SOLAR SYSTEMS ORIGINS
 05/06/1997 – 02/28/1999 FY98: \$0 Total: \$45,000
Prin. Invest.: D B JACOBSEN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4522 HARVARD UNIVERSITY **5697**
DEVELOPMENT OF HOT-ELECTRON MICROBOLOMETERS FOR OB COS-
MIC MICROWAVE BACKGROUND RADIATION
 05/28/1997 – 05/31/1998 FY98: \$0 Total: \$250,000
Prin. Invest.: P N HUM
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 – ASTRONOMY

NAG 5 4601 HARVARD UNIVERSITY **5698**
INVESTIGATION OF STAR FORMATION
 05/14/1997 – 04/30/1998 FY98: \$0 Total: \$45,000
Prin. Invest.: D G CAMERON
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4690 HARVARD UNIVERSITY **5699**
THEORETICAL RESEARCH IN PLANETARY PHYSICS
 06/26/1997 – 06/30/1999 FY98: \$68,000 Total: \$138,000
Prin. Invest.: D G CAMERON
Tech. Officer: GSFC/D F NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4713 HARVARD UNIVERSITY **5700**
CRYSTAL-LIQUID DENSITY INVERSIONS IN LUNAR AND PLA
 06/17/1997 – 06/30/1999 FY98: \$0 Total: \$70,000
Prin. Invest.: D G GEE
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4720 HARVARD UNIVERSITY **5701**
TUNGSTEN ISOTOPE STUDIES OF METEORITES
 06/17/1997 – 03/31/1999 FY98: \$25,000 Total: \$50,000
Prin. Invest.: D B JACOBSEN
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4722 HARVARD UNIVERSITY **5702**
NET ECOSYSTEM EXCHANGE OF CO2 AND NITROGEN OXIDES: MEA-
SUREMENTS CLIMATIC & BIOLOGICAL CONTROLS & SPA
 06/11/1997 – 12/31/1998 FY98: \$0 Total: \$302,000
Prin. Invest.: D W C RSY
Tech. Officer: GSFC/D WICKLAND
CASE Category: 33 – ENVIRONMENTAL SCI, OTHER

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| NAG 5 5103 HARVARD UNIVERSITY 5703 DEVELOPMENT OF EXITE3, IMAGING DETECTORS AND A LONG-DURATION BALLOON GONDOLA 02/11/1997 - 12/31/1998 FY98: \$203,082 Total: \$400,510 Prin. Invest.: J E GRINDLAY Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT CASE Category: 13 - PHYSICS | NAG 5 7403 HARVARD UNIVERSITY 5711 ARE GS1826 AND SLX1735-269 BLACK HOLE OR NEUTRON STAR SYSTEMS 05/13/1998 - 05/14/1999 FY98: \$14,850 Total: \$14,850 Prin. Invest.: J GRINDLAY Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY |
| NAG 5 6136 HARVARD UNIVERSITY 5704 EDDY CORRELATION FLUX MEASUREMENTS OF CO₂, O₃ AND 09/11/1997 - 04/30/1998 FY98: \$0 Total: \$330,000 Prin. Invest.: D WOFSY Tech. Officer: HQ/D WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7534 HARVARD UNIVERSITY 5712 LONG-TERM NET ECOSYSTEM EXCHANGE AT THE BOREAS NORTHERN OLD BLACKSPRUCE SITE: MECHANISMS FOR 06/11/1998 - 05/31/2001 FY98: \$389,000 Total: \$389,000 Prin. Invest.: S C WORSY Tech. Officer: GSFC/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 6569 HARVARD UNIVERSITY 5705 WORKSHOP ON LABORATORY ASTROPHYSICS 11/19/1997 - 10/31/1998 FY98: \$19,000 Total: \$19,000 Prin. Invest.: W H PARKINSON Tech. Officer: GSFC/H HASAN CASE Category: 11 - ASTRONOMY | NAG 5 7610 HARVARD UNIVERSITY 5713 INVESTIGATION OF STAR FORMATION PROCESSES 07/31/1998 - 07/31/1999 FY98: \$30,000 Total: \$30,000 Prin. Invest.: A CAMERON Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY |
| NAG 5 6603 HARVARD UNIVERSITY 5706 PHOTOMETRIC STUDIES OF KUIPER BELT OBJECTS 12/16/1997 - 02/28/1999 FY98: \$639 Total: \$639 Prin. Invest.: J LUU Tech. Officer: GSFC/T MORGAN CASE Category: 11 - ASTRONOMY | NAG 5 7616 HARVARD UNIVERSITY 5714 FUNDING FOR 'INVESTIGATIONS OF THE GEODYNAMO USING SATELLITE MAGNETIC FIELD OBSERVATIONS' (SENH98-0) 07/22/1998 - 01/15/1999 FY98: \$37,000 Total: \$37,000 Prin. Invest.: J BLOXHAM Tech. Officer: GSFC/H V FREY CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 5 6994 HARVARD UNIVERSITY 5707 ASCA PROPOSAL - WHY DO SOME X-RAY BURSTERS HAVE HARD X-RAY TAILS? 02/10/1998 - 02/14/1999 FY98: \$15,400 Total: \$15,400 Prin. Invest.: J GRINDLAY Tech. Officer: GSFC/N WHITE CASE Category: 11 - ASTRONOMY | NAG 5 1256 HARVARD UNIVERSITY 5715 KINETICS OF NUCLEATION AND GROWTH FROM UNDERCOOLED MELTS 05/24/1996 - 05/22/2000 FY98: \$175,000 Total: \$437,500 Prin. Invest.: F A SPAEPEN, F SPAEPEN Tech. Officer: MSFC/C R TALLEY CASE Category: 19 - PHYSICAL SCIENCE, OTHER |
| NAG 5 7039 HARVARD UNIVERSITY 5708 STRUCTURE AND EVOLUTION OF X-RAY CLUSTERS: THEORY AND IMPLICATIONS FOR AXAF-ATP 02/25/1998 - 02/14/1999 FY98: \$88,218 Total: \$88,218 Prin. Invest.: A LOEB Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY | NAGW 624 HARVARD UNIVERSITY 5716 DEVELOPMENT OF AN ENERGETIC X-RAY IMAGING EXPERIMENT (EXITE) AND ASSOCIATED BALLON GONDOLA 04/01/1984 - 12/31/1997 FY98: -\$22 Total: \$3,668,448 Prin. Invest.: J GRINDLAY Tech. Officer: HQ/L J KALUZIENSKI, HQ/A N BUNNER CASE Category: 11 - ASTRONOMY |
| NAG 5 7201 HARVARD UNIVERSITY 5709 GLOBAL THREE-DIMENSIONAL MODELING OF THE EFFECTS OF SUBSONIC AIRCRAFT ON OZONE 03/24/1998 - 09/30/1998 FY98: \$172,000 Total: \$172,000 Prin. Invest.: D JACOB Tech. Officer: GSFC/R W STEWART CASE Category: 31 - ATMOSPHERIC SCIENCE | NAGW 1598 HARVARD UNIVERSITY 5717 THEORETICAL RESEARCH IN PLANETARY PHYSICS 01/23/1989 - 06/30/1997 FY98: \$0 Total: \$571,342 Prin. Invest.: A G CAMERON Tech. Officer: HQ/J M BOYCE, HQ/A M BOYCE CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 5 7393 HARVARD UNIVERSITY 5710 STUDIES OF HARD TAILS IN X-RAY BURSTERS: KS1731-260 AND SLX1732-304 05/12/1998 - 05/14/1999 FY98: \$14,850 Total: \$14,850 Prin. Invest.: J GRINDLAY Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY | NAGW 2277 HARVARD UNIVERSITY 5718 INVESTIGATIONS OF STAR FORMATION PROCESSES 01/09/1991 - 06/30/1997 FY98: -\$538 Total: \$339,683 Prin. Invest.: A G CAMERON Tech. Officer: HQ/J A NUTH CASE Category: 19 - PHYSICAL SCIENCE, OTHER |

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| <p>NAGW 2858 HARVARD UNIVERSITY 5719 ISOTOPIC STUDIES OF THE ORIGIN OF THE SOLAR SYSTEM 01/31/1992 - 01/31/1997 FY98: -\$9 Total: \$364,950 <i>Prin. Invest.:</i> S B JACOBSEN <i>Tech. Officer:</i> HQ/J A NUTH CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p> | <p>NAGW 4928 HARVARD UNIVERSITY 5727 CCD PHOTOMETRY STUDY 03/07/1996 - 06/30/1997 FY98: \$0 Total: \$40,028 <i>Prin. Invest.:</i> J J LUU <i>Tech. Officer:</i> H W E BARKER, HQ/J RAHE CASE Category: 13 - PHYSICS</p> |
| <p>NAGW 3082 HARVARD UNIVERSITY 5720 DIRECT MEASUREMENTS OF ECOSYSTEM FLUXES OF CO2 AND NOY 05/15/1992 - 06/30/1997 FY98: -\$480 Total: \$1,362,034 <i>Prin. Invest.:</i> S C WOFSY <i>Tech. Officer:</i> HQ/A C JANETOS, HQ/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p> | <p>NAS 1 18946 HARVARD UNIVERSITY 5728 SAGE III SCIENCE SUPPORT; P.I. - WOFSY 11/28/1989 - 01/31/2005 FY98: \$14,000 Total: \$304,946 <i>Prin. Invest.:</i> S C WOFSY <i>Tech. Officer:</i> LA RC/G L MADDREA CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p> |
| <p>NAGW 3996 HARVARD UNIVERSITY 5721 CRYSTAL-LIQUID DENSITY INVERSIONS IN TERRESTRIAL AND LUNAR BASALTS 05/14/1994 - 03/31/1998 FY98: \$0 Total: \$203,250 <i>Prin. Invest.:</i> C AGEE <i>Tech. Officer:</i> HQ/J BOYCE CASE Category: 32 - GEOLOGICAL SCIENCE</p> | <p>NAS 1 96022 HARVARD UNIVERSITY 5729 SAGE II DATA - STRATOSPHERIC CHEMISTRY AND TRANSPORT USING STUDIES OF 06/19/1996 - 05/31/1998 FY98: -\$50,000 Total: \$100,000 <i>Prin. Invest.:</i> S C WOFSY <i>Tech. Officer:</i> LA RC/G L MADDREA, JR. CASE Category: 31 - ATMOSPHERIC SCIENCE</p> |
| <p>NAGW 4170 HARVARD UNIVERSITY 5722 DEVELOPMENT OF HOT-ELECTRON MICROCALORIMETERS FOR X-RAY ASTRONOMY 10/20/1994 - 09/30/1996 FY98: \$0 Total: \$255,000 <i>Prin. Invest.:</i> M NAHUM <i>Tech. Officer:</i> HQ/L J KALUZIENSKI CASE Category: 11 - ASTRONOMY</p> | <p>NCC 2 694 HARVARD UNIVERSITY 5730 DEVELOPMENT OF A HIGH-SENSITIVITY, FAST RESPONSE INSTRUMENT FOR IN SITU DETERMINATION OF CO2 09/27/1990 - 09/30/1998 FY98: \$209,000 Total: \$1,932,108 <i>Prin. Invest.:</i> S C WOFSY, D W TOOHEY <i>Tech. Officer:</i> AR/C/E P CONDON CASE Category: 31 - ATMOSPHERIC SCIENCE</p> |
| <p>NAGW 4412 HARVARD UNIVERSITY 5723 SEARCH FOR 23RD-MAG KUIPER BELT COMETS 09/20/1995 - 06/30/1997 FY98: \$0 Total: \$63,010 <i>Prin. Invest.:</i> J LUU <i>Tech. Officer:</i> HQ/P G ROGERS CASE Category: 11 - ASTRONOMY</p> | <p>NCC 2 892 HARVARD UNIVERSITY 5731 AIRBORNE INSTRUMENTS FOR THE IN SITU DETECTION OF CIONO2, NO2, CIO, & BRO IN THE STRATOSPHERE 03/16/1995 - 06/30/1997 FY98: \$413 Total: \$2,424,403 <i>Prin. Invest.:</i> G J ANDERSON <i>Tech. Officer:</i> AR/C/S S WEGENER CASE Category: 31 - ATMOSPHERIC SCIENCE</p> |
| <p>NAGW 4609 HARVARD UNIVERSITY 5724 CROSS SECTION MEASUREMENTS FOR SOLAR COSMIC RAY STUDIES 08/17/1995 - 03/31/1998 FY98: \$0 Total: \$130,622 <i>Prin. Invest.:</i> M FRANKLIN <i>Tech. Officer:</i> HQ/D NAVA CASE Category: 12 - CHEMISTRY</p> | <p>NCC 2 897 HARVARD UNIVERSITY 5732 LIGHTWEIGHT HIGH-PRECISION, FAST RESPONSE INSTRUMENT FOR AIRBORNE CO2 MEASUREMENTS FOR UAVS 03/22/1995 - 12/31/1998 FY98: \$225,000 Total: \$1,054,804 <i>Prin. Invest.:</i> S C WOFSY <i>Tech. Officer:</i> AR/C/S S WEGENER CASE Category: 31 - ATMOSPHERIC SCIENCE</p> |
| <p>NAGW 4781 HARVARD UNIVERSITY 5725 DEVELOPMENT OF AN ULTRA-SENSITIVE FAR-INFRARED SPECTROMETER, AND A 100 MK REFRIGERATOR, INTEGRATED 09/20/1995 - 08/01/1997 FY98: \$0 Total: \$150,000 <i>Prin. Invest.:</i> M NAHUM <i>Tech. Officer:</i> HQ/D A HOLLAND, HQ/J H BREDEKAMP CASE Category: 11 - ASTRONOMY</p> | <p>NCC 2 913 HARVARD UNIVERSITY 5733 STRAT CAMPAIGN: ER-2 PARTICIPATION 08/25/1995 - 09/30/1998 FY98: \$0 Total: \$920,157 <i>Prin. Invest.:</i> J G ANDERSON <i>Tech. Officer:</i> AR/C/S S WEGENER CASE Category: 31 - ATMOSPHERIC SCIENCE</p> |
| <p>NAGW 4819 HARVARD UNIVERSITY 5726 HIGH SPEED CCD PHOTOMETRY OF THE P/SOEMAKER-LEVY JUPITER COLLISION 10/06/1995 - 06/30/1997 FY98: -\$4 Total: \$24,723 <i>Prin. Invest.:</i> J LUU <i>Tech. Officer:</i> HQ/E BARKER CASE Category: 11 - ASTRONOMY</p> | <p>NCC 2 1053 HARVARD UNIVERSITY 5734 THE PLANETARY CONTEXT OF BIOLOGICAL EVOLUTION 09/14/1998 - 06/30/2003 FY98: \$138,000 Total: \$138,000 <i>Prin. Invest.:</i> A H KJOLL <i>Tech. Officer:</i> AR/C/E BUNCH CASE Category: 59 - LIFE SCIENCE, OTHER</p> |

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| NCC 5 341 HARVARD UNIVERSITY 5735 NET ECOSYSTEM EXCHANGE OF CO2 AND H2O FROM PRIMARY TROPICAL FOREST IN CENTRAL AMAZONIA 07/07/1998 - 02/14/1999 FY98: \$275,500 Total: \$275,500 Prin. Invest.: S C WOFSY Tech. Officer: GSFC/D W DEERING CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NGT 5 30152 HARVARD UNIVERSITY 5743 BIOLOGICAL AND PHYSICAL CONTROLS ON EVAPOTRANSPIRATION IN A MID-LATITUDE FOREST 08/28/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000 Prin. Invest.: S C WOFSY, LIN Tech. Officer: GSFC/M Y WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NGT 30182 HARVARD UNIVERSITY 5736 GLOBAL CHANGE FELLOWSHIP PROGRAM 09/02/1993 - 08/31/1997 FY98: -\$332 Total: \$65,668 Prin. Invest.: M S MCELROY Tech. Officer: HQ/G ASRAR, HQ/D M BUTLER CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NGT 5 50020 HARVARD UNIVERSITY 5744 OBSERVATIONS AND INSTRUMENTATION DEVELOPMENT TO STUTRON STARS' 07/14/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: J GRINDLEY Tech. Officer: GSFC/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NGT 51312 HARVARD UNIVERSITY 5737 GRADUATE STUDENT RESEARCHER PROGRAM 08/22/1994 - 08/31/1997 FY98: -\$1,966 Total: \$64,034 Prin. Invest.: R KIRSHNER Tech. Officer: ARC/M MOORE CASE Category: 11 - ASTRONOMY | NGT 5 50028 HARVARD UNIVERSITY 5745 A COMBINED X-RAY AND GRAVITATIONAL LENSING DETERMINERS OF GALAXIES 07/14/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: A LOEB Tech. Officer: GSFC/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NGT 51405 HARVARD UNIVERSITY 5738 GRADUATE STUDENT RESEARCHERS PROGRAM 07/27/1995 - 07/31/1997 FY98: -\$6,008 Total: \$37,992 Prin. Invest.: M NAHUM Tech. Officer: HQ/D HOLLAND CASE Category: 13 - PHYSICS | NGT 5 50122 HARVARD UNIVERSITY 5746 AN X-RAY DETECTOR WITH BETTER THAN 10EV RESOLUTION RATOR, INTEGRATED ONTO A SINGLE CHIP 09/10/1997 - 08/31/1998 FY98: \$0 Total: \$22,000 Prin. Invest.: D NAHUM Tech. Officer: HQ/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NGT 51664 HARVARD UNIVERSITY 5739 GRSAD STUDENT RESEARCH PROGRAM 08/23/1996 - 08/31/1997 FY98: -\$2,507 Total: \$19,493 Prin. Invest.: A LOEB Tech. Officer: HQ/D HOLLAND CASE Category: 13 - PHYSICS | NGT 5 50145 HARVARD UNIVERSITY 5747 EFFICIENT, PORTABLE PARALLEL VOLUME RENDERING 09/17/1997 - 08/31/1998 FY98: \$0 Total: \$22,000 Prin. Invest.: L G VALIANT Tech. Officer: HQ/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NGT 51706 HARVARD UNIVERSITY 5740 GRAD STUDENT RESEARCH PROGRAM 08/15/1996 - 08/31/1997 FY98: \$0 Total: \$22,000 Prin. Invest.: L VALIANT Tech. Officer: JPL/C HIX CASE Category: 21 - MATHEMATICS | NGT 5 90039 HARVARD UNIVERSITY 5748 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR) 01/30/1997 - 08/14/1997 FY98: \$0 Total: \$24,000 Prin. Invest.: L BUELL Tech. Officer: GSFC/R LAWRENCE CASE Category: 49 - ENGINEERING, OTHER |
| NGT 5 30002 HARVARD UNIVERSITY 5741 EFFECTS OF ELEVATED CO2 AND NITROGEN DEPOSITION ON AND COMMUNITY COMPOSITION IN A MIXED CONIFER-HARD 10/11/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000 Prin. Invest.: F BAZZAZ Tech. Officer: GSFC/G ASRAR CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NGT10 52601 HARVARD UNIVERSITY 5749 GRADUATE STUDENT RESEARCH GRANT 06/05/1995 - 06/30/1999 FY98: \$0 Total: \$66,000 Prin. Invest.: M J HULLER Tech. Officer: KSC/J SAGER CASE Category: 55 - AGRICULTURE |
| NGT 5 30144 HARVARD UNIVERSITY 5742 THE EFFECTS OF ADJACENCY ARRANGEMENTS ON PLANT DIVERSITY IN THE ASPEN PARKLAND ALBERTA 08/27/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000 Prin. Invest.: R FORMAN, HERSPERG Tech. Officer: GSFC/M Y WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 1 991 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5750 COMPOSITE FUSELAGE TECHNOLOGY 04/10/1989 - 07/31/1999 FY98: \$119,984 Total: \$950,793 Prin. Invest.: P A LAGACE, M J GRAVES Tech. Officer: LARC/J H STARNES, LARC/M J SHUART CASE Category: 41 - AERONAUTICAL ENGR |

NAG 1 1252 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5751
METEOROLOGICAL ANALYSIS OF PACIFIC EXPLORATORY MISSION-WEST (PEM-WEST)
 04/15/1991 - 09/30/1996 FY98: -\$42 Total: \$928,832
Prin. Invest.: R E NEWELL
Tech. Officer: LARC/J M HOELL, LARC/M C SHIPHAM
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1512 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5752
SUCTION AND BLOWING STRATEGIES FOR REDUCTION OF FAN NOISE
 06/25/1993 - 09/30/1998 FY98: \$101,050 Total: \$939,640
Prin. Invest.: I A WAITZ, K U INGARD, A H EPSTEIN
Tech. Officer: LARC/C H GERHOLD
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1525 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5753
PROBLEMS IN SUPERSONIC BOUNDARY LAYER STABILITY
 06/30/1993 - 12/31/1997 FY98: -\$9,696 Total: \$49,672
Prin. Invest.: K S BREYER
Tech. Officer: LARC/S K ROBINSON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1531 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5754
ANALYSIS OF NOISE MINIMAL APPROACH AND DEPARTURE PROCEDURES USING ADVANCED FLIGHT GUIDANCE TECHNIQUE
 08/30/1993 - 08/31/1997 FY98: -\$382 Total: \$308,512
Prin. Invest.: R J HANSMAN JR.
Tech. Officer: LARC/C A POWELL, LARC/K P SHEPHERD
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1587 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5755
FINITE ELEMENT METHODS FOR THE SIMULATION OF HYPersonic FLOWS
 01/31/1994 - 11/30/1998 FY98: \$82,977 Total: \$354,452
Prin. Invest.: J PERAIRE
Tech. Officer: LARC/K S BEY, LARC/A R WIETING
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1613 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5756
SURROGATES FOR NUMERICAL SIMULATIONS; AN OPTIMIZATION FRAMEWORK
 05/06/1994 - 12/31/1997 FY98: -\$1,993 Total: \$238,318
Prin. Invest.: A T PATERA
Tech. Officer: LARC/T W ROBERTS
CASE Category: 46 - MECHANICAL ENGR

NAG 1 1717 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5757
STRUCTURAL TECHNOLOGY FOR ADVANCED SPACECRAFT
 06/06/1995 - 03/31/1997 FY98: -\$6,083 Total: \$393,918
Prin. Invest.: E F CRAWLEY
Tech. Officer: LARC/W BELVIN
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 1758 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5758
PHYSICAL PROCESSES GOVERNING ATMOSPHERIC TRACE CONSTITUENTS MEASURED FROM AIRCRAFT IN PEM-TROPICS
 09/25/1995 - 03/31/1999 FY98: \$173,381 Total: \$641,421
Prin. Invest.: D E NEWELL, NONE
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1785 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5759
A LOW SELF NOISE MICROMACHINED MICROPHONE
 01/24/1996 - 02/28/1998 FY98: \$63,300 Total: \$379,621
Prin. Invest.: M A SCHMIDT, K S BREUER
Tech. Officer: LARC/J M SEINER, LARC/T D NORUM
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1805 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5760
INTERPRETATION OF TRACE GAS DATA USING INVERSE METHODS AND GLOBAL CHEMICAL TRANSPORT MODELS
 02/08/1996 - 12/31/1998 FY98: \$132,000 Total: \$396,770
Prin. Invest.: R C PRINN
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1839 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5761
ADVANCED SPACECRAFT ARCHITECTURAL CONCEPTS (ASAC) MY 1/2
 06/28/1996 - 01/15/1999 FY98: \$1 Total: \$235,649
Prin. Invest.: D W MILLER
Tech. Officer: LARC/B R HANKS
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 1 1857 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5762
FUNDAMENTAL ISSUES INVOLVED WITH MODE AWARENESS OF ADVANCED AUTOFLIGHT SYSTEMS
 07/24/1996 - 12/31/1998 FY98: \$56,538 Total: \$203,591
Prin. Invest.: R J HANSMAN
Tech. Officer: LARC/M T PALMER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1900 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5763
TRACE GAS TRANSPORT IN THE TROPOSPHERE AND THE INTERPRETATION OF IN SITU CONCENTRATION MEASURE.
 02/10/1997 - 02/03/1999 FY98: \$72,000 Total: \$147,000
Prin. Invest.: R A PLUMB
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 11 - ATMOSPHERIC SCIENCE

NAG 1 1901 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5764
USE OF MAPS, CITE AND UARS-MLS DATA IN UNDERSTANDING TROPOSPHERIC PROCESSES CRITICAL TO MODEL DELV.
 02/10/1997 - 02/03/1999 FY98: \$76,000 Total: \$156,000
Prin. Invest.: R E NEWELL
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1915 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5765
HIGH TEMPERATURE PHOTOVOLTAIC IR DETECTORS FOR SPACE APPLICATIONS
 04/22/1997 - 09/15/1997 FY98: \$0 Total: \$79,678
Prin. Invest.: A F WITT, P BECLA
Tech. Officer: LARC/S P SANDFORD, LARC/J M MARLOWE
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1974 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5766
INVEST OF AIRBORNE ALERTING SYSTEMS FOR CLOSELY-SPACED PARALLEL RUNWAY APPROACH. NLPN 97-820
 10/22/1997 - 10/21/1998 FY98: \$78,019 Total: \$78,019
Prin. Invest.: J K KLCHAR, NONE
Tech. Officer: LARC/M C WALLER
CASE Category: 9 - MULTI INTERDISCIPL, OTHER

NAG 1 1978 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5767**
FAST BOUND METHODS FOR LARGE SCALE SIMULATION WITH APPLICATION FOR ENGINEERING OPTIMIZATION
 12/10/1997 - 12/09/1998 FY98: \$140,000 Total: \$140,000
Prin. Invest.: A T PATERN, J PERAIRE
Tech. Officer: LARC/T A TANG, LARC/N M ALEXANDRIA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2027 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5768**
LARGE-SCALE STRATOSPHERIC TRANSPORT PROCESSES MY 1/3
 03/20/1998 - 02/28/1999 FY98: \$142,000 Total: \$142,000
Prin. Invest.: R A PLUMB
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 716 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5769**
SITUATIONAL AWARENESS ISSUES IN THE IMPLEMENTATION OF DATA LINK
 06/26/1991 - 12/31/1998 FY98: \$109,008 Total: \$1,100,318
Prin. Invest.: R J HANSMAN
Tech. Officer: ARC/K CORKER
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 729 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5770**
MODELING INFORMATION PROCESSING IN FLIGHT MANAGEMENT
 08/27/1991 - 06/30/1998 FY98: \$134,975 Total: \$694,962
Prin. Invest.: T B SHERIDAN
Tech. Officer: ARC/K M CORKER, ARC/E J HARTZELL
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 2 855 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5771**
ARCHIVING OF PLANETARY RING DATA
 07/16/1993 - 02/28/1999 FY98: \$10,000 Total: \$102,380
Prin. Invest.: J L ELLIOT
Tech. Officer: ARC/J N CUZZI
CASE Category: 11 - ASTRONOMY

NAG 2 997 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5772**
EXISTING & REQUIRED MODELING CAPABILITIES FOR EVALUATING ATM SYSTEMS & CONCEPTS
 08/25/1995 - 12/31/1996 FY98: -\$10,792 Total: \$211,798
Prin. Invest.: A R ODONI, J J DEYST
Prin. Invest.: E FERON
Tech. Officer: ARC/S HASAN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1088 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5773**
DECENTRALIZED & TACTICAL AIR TRAFFIC FLOW MANAGEMENT
 10/03/1996 - 06/30/1997 FY98: -\$391 Total: \$59,609
Prin. Invest.: A R ODONI
Tech. Officer: ARC/L TOBIAS, ARC/D R SCHLEICHER
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1105 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5774**
THE SASS OZONE & NOX EXPERIMENT (SONEX) OVER THE NORTH ATLANTIC: SELECTIVE SAMPLING BASED ON
 01/24/1997 - 12/31/1998 FY98: \$126,570 Total: \$248,070
Prin. Invest.: N E NEWELL
Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1111 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5775**
INVESTIGATION OF ALERT ZONE & DISPLAY CONCEPTS FOR FREE FLIGHT
 02/14/1997 - 10/31/1998 FY98: \$100,000 Total: \$219,977
Prin. Invest.: J K KUCHAR
Tech. Officer: ARC/S C LOZITO
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1128 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5776**
DEPARTURES PLANNING AT BUSY AIRPORTS
 05/09/1997 - 09/30/1998 FY98: \$160,000 Total: \$333,276
Prin. Invest.: A R ODONI, R J HANSMAN, E FERON
Tech. Officer: ARC/R W REMINGTON, ARC/B GLASS
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 2 1136 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5777**
SDSI IMPLEMENTATION
 07/11/1997 - 05/31/1999 FY98: \$50,036 Total: \$101,156
Prin. Invest.: R L RIVEST
Tech. Officer: ARC/Y K LIU
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 1237 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5778**
VORT STRUCT IN COMPRESSOR ENDWALL FLOWFIELDS: BASIC FLUID MECH & IMPACT ON PERFORMANCE & STABILITY
 03/14/1991 - 03/18/1997 FY98: -\$51 Total: \$589,001
Prin. Invest.: E M GREITZER, NONE
Tech. Officer: LERC/G J SKOCH
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1513 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5779**
EFFECTS OF FLOW UNSTEADINESS ON MULTISTAGE COMPRESSOR PERFORMANCE
 08/06/1993 - 09/30/1998 FY98: \$0 Total: \$143,094
Prin. Invest.: E M GREITZER, F E MARBLE, N A CUMPTSY
Tech. Officer: LERC/A J STRAZISAR
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1591 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5780**
UTILITY OF THE FLOW SUBSTITUTION PRINCIPLE FOR HIGH SPEED PULSION APPLICATIONS
 06/01/1994 - 12/21/1996 FY98: -\$274 Total: \$120,710
Prin. Invest.: C S TAN, E M GREITZER
Tech. Officer: LERC/M MIZUKAMI, LERC/C K DRUMMOND
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1640 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5781**
CHEMICAL INHIBITOR EFFECTS ON DIFFUSION FLAMES IN MICROGRAVITY
 06/30/1994 - 01/31/1999 FY98: \$0 Total: \$314,364
Prin. Invest.: S HOCHGREB, G T LINTERIS
Tech. Officer: LERC/H ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1664 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5782**
CHEMICAL PROCESSES IN THE TURBINE AND EXHAUST NOZZLE
 09/19/1994 - 10/19/1998 FY98: \$135,000 Total: \$655,657
Prin. Invest.: I A WALTZ, R C MIAKE-LYE
Tech. Officer: LERC/L S N, LERC/H L NGUYEN
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1679 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5783**
DIRECT SIMULATION OF THREE DIMENSIONAL FLUID MECHANICAL PHENOMENA IN INTERNAL FLOWS
 11/09/1994 - 07/31/1998 FY98: \$0 Total: \$143,927
Prin. Invest.: C S TAN
Tech. Officer: LERC/J J ADAMCZYK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1761 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5784**
QUANTITATIVE STUDIES OF ICE ACCRETION PROCESSES
 06/22/1995 - 07/31/1997 FY98: \$0 Total: \$93,053
Prin. Invest.: R J HANSMAN, K S BREUER
Tech. Officer: LERC/M G POTAPCZUK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1771 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5785**
STATE VARIABLE MEASUREMENT IN HIGH SPEED TURBOMACHINERY
 07/14/1995 - 07/12/1997 FY98: -\$283 Total: \$86,778
Prin. Invest.: A E EPSTEIN
Tech. Officer: LERC/A STRAZISAR
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1845 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5786**
DYNAMICS OF THE MOLTEN CONTACT LINE
 05/20/1996 - 05/19/2000 FY98: \$88,000 Total: \$305,000
Prin. Invest.: A A SONIN
Tech. Officer: LERC/M M HASAN
CASE Category: 13 - PHYSICS

NAG 3 1879 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5787**
MODELING OF PULSED PLASMA THRUSTER PLUMES
 05/22/1996 - 05/21/2000 FY98: \$108,000 Total: \$294,000
Prin. Invest.: J B HOWARD
Tech. Officer: LERC/J E BROOKER
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1937 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5788**
A STUDY OF MICROFABRICATED LIQUID ROCKET MOTORS
 08/05/1996 - 11/30/1998 FY98: \$124,998 Total: \$325,239
Prin. Invest.: A H EPSTEIN, J L KERREBROCK
Tech. Officer: LERC/S J SCHNEIDER
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 3 2019 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5789**
A GEOMETRY BASED INFRA-STRUCTURE FOR COMPUTATIONAL ANALYSIS
 03/05/1997 - 02/04/1999 FY98: \$76,091 Total: \$152,119
Prin. Invest.: R HAILES
Tech. Officer: LERC/G J FOLLEN, LERC/C LAWRENCE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2045 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5790**
MANAGEMENT OF COMPRESSOR TIP CLEARANCE AND CASING TREATMENT FLOWS
 04/30/1997 - 11/30/1998 FY98: \$122,071 Total: \$122,071
Prin. Invest.: C S TAN
Tech. Officer: LERC/M HATHAWAY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2051 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5791**
THREE DIMENSIONAL AERODYNAMIC INSTABILITIES IN MULTI-STAGE AXIAL COMPRESSORS
 05/27/1997 - 09/30/1998 FY98: \$35,120 Total: \$101,142
Prin. Invest.: C S TAN
Tech. Officer: LERC/A K OWEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2052 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5792**
IDENTIFICATION AND CONTROL OF ROTATING STALL MODES IN AXIAL COMPRESSORS
 05/27/1997 - 12/18/1998 FY98: \$122,993 Total: \$243,638
Prin. Invest.: J P DUANO
Tech. Officer: LERC/M BRIGHT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2054 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5793**
IMPROVED MECHANISM-BASED LIFE PREDICTION MODELS
 06/06/1997 - 05/1/1999 FY98: \$60,000 Total: \$100,000
Prin. Invest.: H L MC MANUS
Tech. Officer: LERC/K J BOWLES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2078 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5794**
AERODYNAMICS OF ADVANCED SUBSONIC TRANSPORT INTEGRATED FAN BYPASS DUCT SYSTEM AND ITS DESIGN
 12/18/1997 - 12/7/2000 FY98: \$104,427 Total: \$104,427
Prin. Invest.: C S TAN
Tech. Officer: LERC/J J ADAMCZYK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2101 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5795**
THREE-DIMENSIONAL AERODYNAMIC INSTABILITIES IN MULTI-STAGE AXIAL COMPRESSORS
 12/23/1997 - 11/21/2000 FY98: \$93,622 Total: \$93,622
Prin. Invest.: C S TAN
Tech. Officer: LERC/K L SUDER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2155 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5796**
AN INTEROMETRIC INVESTIGATION OF CONTACT LINE DYNAMICS IN SPREADING POLYMER MELTS AND SOLUTIONS
 04/21/1998 - 01/15/2002 FY98: \$50,000 Total: \$50,000
Prin. Invest.: G H MCKINLEY
Tech. Officer: LERC/N R HALL
CASE Category: 13 - PHYSICAL SCIENCE, OTHER

NAG 3 2178 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5797**
INTEGRATED HUMAN CENTERED SYSTEMS ANALYSIS OF FUNCTIONAL REQUIREMENTS FOR COCKPIT ICING INFORMATION
 07/08/1998 - 09/30/1999 FY98: \$20,000 Total: \$20,000
Prin. Invest.: R J HANSMAN
Tech. Officer: LERC/A REEHORST
CASE Category: 4 - AERONAUTICAL ENGR

NAG 3 2179 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5798**
INTRA-ENGINE TRACE SPECIES CHEMISTRY
 06/30/1998 - 06/30/2001 FY98: \$43,981 Total: \$43,981
Prin. Invest.: L WAI Z
Tech. Officer: LERC/C C WEY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 105 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5799**
DEVELOPMENT OF AN UNSTRUCTURED MESH CAPABILITY FOR AERO-ELASTIC COMPUTATIONS ABOUT COMPLETE AIRCRAFT
 02/02/1996 – 10/30/1998 FY98: \$40,124 Total: \$147,420
Prin. Invest.: J PERAIRE, NONE
Tech. Officer: DFRC/K GUPTA
CASE Category: 22 – COMPUTER SCIENCE

NAG 4 120 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5800**
DEVELOPMENT AND TESTING OF AIRFOILS FOR HIGH ALTITUDE AIRCRAFT
 03/18/1997 – 10/31/1998 FY98: \$35,852 Total: \$85,852
Prin. Invest.: M DRELA
Tech. Officer: DFRC/D S GREER, DFRC/A BOWERS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 4 157 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5801**
DEVELOPMENT OF AN UNSTRUCTURED MESH CODE FOR FLOWS ABOUT COMPLETE VEHICLES
 08/27/1998 – 08/31/1999 FY98: \$14,343 Total: \$14,343
Prin. Invest.: J PERAIRE
Tech. Officer: DFRC/K GUPTA
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 584 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5802**
ANALYSIS OF THE SOLAR WIND EXPERIMENT – IMP-8
 10/01/1985 – 09/30/1998 FY98: \$174,363 Total: \$1,471,482
Prin. Invest.: A J LAZARUS
Tech. Officer: GSFC/J KING
CASE Category: 11 – ASTRONOMY

NAG 5 1055 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5803**
GENERATION OF ARTIFICIAL PLASMA LAYERS BY 2 MICROWAVE BEAMS VIA AIR BREAKDOWN
 06/15/1988 – 11/14/1997 FY98: -\$90 Total: \$291,810
Prin. Invest.: M C LEE
Tech. Officer: GSFC/R F BENSON
CASE Category: 13 – PHYSICS

NAG 5 1826 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5804**
CONTEMPORANEOUS ROSAT/GINGA OBSERVATIONS OF X-RAY DIP SOURCES
 11/13/1991 – 11/14/1996 FY98: -\$60 Total: \$155,584
Prin. Invest.: W H LEWIN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 1905 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5805**
STRATEGIES FOR SPACE GEODETIC MONITORING OF INFRASEISMIC AND SUBSEISMIC TRANSIENT DEFORMATIONS
 02/20/1992 – 08/31/1997 FY98: \$0 Total: \$239,373
Prin. Invest.: T H JORDAN
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 1906 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5806**
STUDIES OF ERROR SOURCES IN GEODETIC VLBI
 02/21/1992 – 07/31/1997 FY98: -\$852 Total: \$311,285
Prin. Invest.: A E ROGERS
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 1911 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5807**
CRUSTAL DEFORMATION FROM SURFACE AND INTERNAL LOADS
 02/26/1992 – 07/31/1997 FY98: -\$4 Total: \$407,996
Prin. Invest.: B H HAGER
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 1947 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5808**
GPS SURVEY OF THE WESTERN TIEN SHAN PROPOSAL
 03/16/1992 – 09/14/1997 FY98: \$0 Total: \$320,000
Prin. Invest.: P MOLNAR
Tech. Officer: GSFC/B G BILLS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2046 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5809**
PULSE TIMING OF VELA X-1
 07/28/1992 – 07/31/1997 FY98: -\$73 Total: \$179,232
Prin. Invest.: W H LEWIN, M VAN DER KLIS
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2165 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5810**
ACCURATE, SIMULTANEOUS GAMMA RAY BURST POSITION DETERMINATION USING THE BURST AND TRANSIENT. . . .
 12/31/1992 – 12/31/1998 FY98: \$0 Total: \$122,000
Prin. Invest.: G R RICKER
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2255 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5811**
MICRO/MESOSCALE PHENOMENA OF CHARGED PARTICLE ENERGY GAZES, IONIZATION, DIFFUSION AND TRANSPORT
 04/27/1993 – 04/30/1997 FY98: \$0 Total: \$795,119
Prin. Invest.: T CHANG
Tech. Officer: GSFC/T J BIRMINGHAM, GSFC/J D BOHLIN
CASE Category: 13 – PHYSICS

NAG 5 2540 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5812**
SPECTROSCOPIC STUDY OF LMC X-4 ECLIPSE PHENOMENA
 02/28/1994 – 03/14/1998 FY98: \$0 Total: \$59,000
Prin. Invest.: G W CLARK
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2541 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5813**
OBSERVATIONS OF DISTANT, X-RAY SELECTED CLUSTERS OF GALAXIES
 02/28/1994 – 03/14/1997 FY98: -\$60 Total: \$7,940
Prin. Invest.: M W BAUTE, NONE
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2542 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5814**
X-RAY SPECTRAL STUDY OF THE SUPERNOVA REMNANT G296.1-0.7
 02/24/1994 – 09/14/1997 FY98: \$0 Total: \$26,922
Prin. Invest.: T H MARKERT
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2545 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5815**
IMPROVED PASSIVE MICROWAVE SOUNDING OF THE ATMOSPHERE
 06/09/1994 - 06/14/1998 FY98: \$0 Total: \$544,000
Prin. Invest.: D H STAELIN
Tech. Officer: GSFC/J SHIUE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2632 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5816**
ROSAT STUDIES OF TRANSIENT BINARY X-RAY PULSARS
 06/23/1994 - 12/31/1997 FY98: \$0 Total: \$20,000
Prin. Invest.: P JOSS
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2685 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5817**
CONTINUATION OF RESEARCH AND IN ORBIT MONITORING OF THE SOLID STATE IMAGING SPECTROMETER
 08/11/1994 - 08/14/1998 FY98: \$220,000 Total: \$1,179,000
Prin. Invest.: G RICKER
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2734 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5818**
X-RAY BURST SPECTROSCOPY
 09/21/1994 - 03/31/1999 FY98: \$0 Total: \$85,000
Prin. Invest.: W LEWIS
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2740 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5819**
CHARACTERIZING STELLAR CORONAE
 09/27/1994 - 03/31/1998 FY98: -\$78 Total: \$27,273
Prin. Invest.: D HUENEMOERDER
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2812 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5820**
DIAGNOSIS OF STRATOSPHERIC TRANSPORT USING MEASUREMENTS OF LONG-LIVED TRACERS FROM UARS
 12/07/1994 - 12/14/1997 FY98: \$0 Total: \$311,910
Prin. Invest.: R A PLUMB
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2816 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5821**
COSMOLOGY AND STRUCTURE FORMATION.
 12/07/1994 - 03/14/1998 FY98: \$0 Total: \$300,000
Prin. Invest.: E BERTSCHINGER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2839 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5822**
SUPPORT OF REDUCTION AND ANALYSIS OF DATA FROM THE WIND SPACECRAFT DURING THE MO&DA PHASE OF THE PRO
 12/14/1994 - 03/14/1998 FY98: \$0 Total: \$587,400
Prin. Invest.: A J LAZARUS
Tech. Officer: GSFC/K W OGILVIE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 2907 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5823**
PARTICIPATION IN THE GISS EOS PROPOSAL
 03/14/1995 - 03/14/1998 FY98: \$0 Total: \$150,000
Prin. Invest.: P STONE
Tech. Officer: GSFC/D RIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2921 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5824**
MEASUREMENT OF MASS DISTRIBUTION IN ABELL CLUSTERS
 03/22/1995 - 09/30/1998 FY98: \$0 Total: \$46,672
Prin. Invest.: D C ANIZARES
Tech. Officer: GSFC/N WHITES
CASE Category: 11 - ASTRONOMY

NAG 5 2928 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5825**
ANALYSIS OF GRAVITY, MAGNETIC, AND SEISMIC REFLECTION DATA FROM TIBET AND NEIGHBORING REGIONS ETC.
 04/14/1995 - 04/14/1999 FY98: \$0 Total: \$225,000
Prin. Invest.: M A CNUTT
Tech. Officer: GSFC/P G TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3009 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5826**
SYSTEMATIC STUDY OF BLACK-HOLE CANDIDATES WITH GINGA DATA GALAXIES
 07/18/1995 - 07/11/1997 FY98: \$0 Total: \$69,500
Prin. Invest.: W H LEWIN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3109 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5827**
ALL - SKY STUDIES OF ACCRETION - POWERED PULSARS
 10/26/1995 - 10/31/1998 FY98: \$52,350 Total: \$153,179
Prin. Invest.: H B ADT, D CHAKRABARTY
Tech. Officer: GSFC/J NORRIS, GSFC/N GEHRELS
CASE Category: 11 - ASTRONOMY

NAG 5 3206 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5828**
MONITORING THE CENTER OF M31
 04/17/1996 - 10/31/1997 FY98: \$0 Total: \$11,510
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/R PETRE
CASE Category: 3 - PHYSICS

NAG 5 3236 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5829**
A SEARCH FOR PULSATIONS FROM BE/X-RAY BINARIES
 05/22/1996 - 11/30/1997 FY98: \$0 Total: \$20,023
Prin. Invest.: J RAFAPOORT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3241 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5830**
SEARCH FOR A PULSAR IN SN 1978 K
 05/22/1996 - 12/14/1998 FY98: \$0 Total: \$27,815
Prin. Invest.: J RAFAPOORT
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3264 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5831**
MARS OBSERVER LASER ALTIMETER INVESTIGATION
 07/31/1996 – 09/30/1997 FY98: \$0 Total: \$215,060
Prin. Invest.: M T ZABER
Tech. Officer: GSFC/D E SMITH
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3266 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5832**
STUDY OF VERY RAPID PHENOMENA IN SCO X-1; RELATION BETWEEN LOW-FREQUENCY NOISE AND MILLISECOND VARI
 07/01/1996 – 12/31/1997 FY98: \$0 Total: \$23,134
Prin. Invest.: W LEWIS
Tech. Officer: GSFC/J SWANK
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 3267 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5833**
STUDY OF VERY RAPID PHENOMENA IN SCO X-1
 07/01/1996 – 12/31/1997 FY98: \$0 Total: \$5,095
Prin. Invest.: E MORGAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3268 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5834**
PULSE TIMING OF THE LOW-MASS X-RAY BINARY PULSAR 4 U1626-67
 07/01/1996 – 12/31/1998 FY98: \$0 Total: \$19,688
Prin. Invest.: A LEVINE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3281 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5835**
TIMING AND SPECTRAL STUDY OF LMC X-4
 07/01/1996 – 12/31/1998 FY98: \$0 Total: \$17,800
Prin. Invest.: G CLARK
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3290 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5836**
MECHANICS OF LITHOSPHERE DEFORMATION
 08/08/1996 – 03/14/1998 FY98: \$0 Total: \$75,390
Prin. Invest.: M T ZUBER
Tech. Officer: GSFC/D E SMITH
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3314 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5837**
A SEARCH FOR MICROSECOND VARIABILITY FROM BRIGHT GALACTIC X-RAY SOURCES
 08/07/1996 – 02/14/1999 FY98: \$0 Total: \$6,849
Prin. Invest.: E MORGAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3550 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5838**
ASSESSMENT OF GEOPHYSICAL SIGNALS IN GLOBAL GEODETIC DATA
 12/14/1996 – 11/30/1998 FY98: \$133,160 Total: \$266,320
Prin. Invest.: D HERRING
Tech. Officer: GSFC/P TAYLOR
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3555 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5839**
A SEARCH FOR HOT GAS IN MERGING CLUSTERS
 01/22/1997 – 01/14/1999 FY98: \$0 Total: \$10,000
Prin. Invest.: D DAVIS
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3558 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5840**
ACCRETING BLACK HOLES – AN ALL OUT EFFORT
 12/14/1996 – 12/15/1998 FY98: -\$53,330 Total: \$46,670
Prin. Invest.: W H LEWIN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3592 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5841**
COSMOLOGICAL APPLICATIONS OF GRAVITATIONAL LENSING
 12/11/1996 – 12/14/1997 FY98: \$0 Total: \$28,453
Prin. Invest.: J HEWITT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3594 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5842**
A SEARCH FOR PULSARS IN THE LMC
 12/13/1996 – 12/31/1997 FY98: \$0 Total: \$10,600
Prin. Invest.: S RAPPAPORT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3597 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5843**
A SEARCH FOR EGRET/RADIO PULSARS IN THE ETA CARINA REGION
 01/22/1997 – 12/31/1998 FY98: \$16,536 Total: \$16,536
Prin. Invest.: V KASPI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3680 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5844**
ECLIPSE MAPPING OF THE HIGH ENERGY RADIATION FROM SCO 1994
 01/11/1997 – 01/14/1998 FY98: \$0 Total: \$10,106
Prin. Invest.: R REMILLARD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3683 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5845**
GAMMA RAY OBSERV OF PSR B1055-52 & OTHER SELECTED RCH FOR EGRET/RADIO PULSARS IN THE ETA CARINA REGI
 01/08/1997 – 01/14/1999 FY98: \$0 Total: \$46,557
Prin. Invest.: V KASPI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3724 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5846**
DETERMINATION OF THE GENERAL CIRCULATION OF THE GEOID SATELLITE ALTIMETRY
 02/12/1997 – 11/30/1998 FY98: \$250,000 Total: \$468,000
Prin. Invest.: C I WUNSCH
Tech. Officer: GSFC/B C DOUGLAS
CASE Category: 33 – OCEANOGRAPHY

NAG 5 3726 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5847**
AMAZON DEFORESTATION & REGIONAL CLIMATE
 02/12/1997 - 02/14/1999 FY98: \$108,000 Total: \$209,531
Prin. Invest.: R L BRAS
Tech. Officer: GSFC/R KAKAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3727 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5848**
DEVELOPMENT OF OLIGONUCLEOTIDE PROBES TO STUDY THE PROCHLOROCOCCUS STRAINS WITH DIFFERING PHOTOSYNTH
 02/20/1997 - 02/14/1999 FY98: \$52,749 Total: \$108,212
Prin. Invest.: S W CHISHOLM
Tech. Officer: GSFC/J A YODER
CASE Category: 33 - OCEANOGRAPHY

NAG 5 3793 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5849**
LARGE-SCALE STRATOSPHERIC TRANSPORT PROCESSES
 03/11/1997 - 02/28/1998 FY98: \$0 Total: \$141,420
Prin. Invest.: R A PLUMB
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3804 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5850**
SEARCH FOR UNTRIGGERED EVENTS IN THE BATSE DATA BASE STUDY OF GRO J1744-28 USING THE BATSE DATA BASE
 12/11/1996 - 12/14/1998 FY98: \$20,000 Total: \$49,000
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3915 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5851**
SOLAR SYSTEM DYNAMICS
 02/21/1997 - 09/30/1998 FY98: \$130,000 Total: \$259,900
Prin. Invest.: J WISDOM
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3939 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5852**
SMALL MAIN-BELT SPECTROSCOPIC SURVEY
 02/12/1997 - 12/31/2001 FY98: \$160,000 Total: \$260,000
Prin. Invest.: D P BINZEL
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 3940 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5853**
STELLAR OCCULTATION STUDIES OF PLUTO, TRITON
 02/12/1997 - 11/30/1998 FY98: \$137,670 Total: \$242,670
Prin. Invest.: D L ELLIOT
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 3947 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5854**
FLOW TUBE STUDIES OF GAS PHASE CHEMICAL PROCESSES IMPORTANCE
 02/21/1997 - 12/31/1998 FY98: \$200,010 Total: \$400,050
Prin. Invest.: M J MOLINA
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3974 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5855**
ADVANCED GLOBAL ATMOSPHERIC GASES EXPERIMENT (AGAGE)
 02/26/1997 - 01/31/1999 FY98: \$514,123 Total: \$934,107
Prin. Invest.: R G PRINN
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3977 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5856**
COLLISION PROCESSES INVOLVING ATMOSPHERIC FREE RAD INFRARED ABSORBERS
 02/26/1997 - 03/31/1999 FY98: \$77,833 Total: \$147,551
Prin. Invest.: P STEINFELD
Tech. Officer: GSFC/P L DECOLA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4014 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5857**
A TEST SPIN-ORBIT COUPLING IN THE 4U0115+63 SYSTEM
 03/03/1997 - 02/28/1999 FY98: \$0 Total: \$3,000
Prin. Invest.: V K KASPI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4047 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5858**
INVESTIGATION OF VENUS SURFACE PROPERTIES
 03/10/1997 - 12/31/1998 FY98: \$55,000 Total: \$110,000
Prin. Invest.: D G FORD
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4057 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5859**
THEORETICAL STUDIES OF BINARY SYSTEMS CONTAINING C
 03/19/1997 - 03/14/1999 FY98: \$51,751 Total: \$96,588
Prin. Invest.: S A RAPPAPORT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4114 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5860**
LONG-TERM MONITORING OF PERSISTENT ACCRETION-POWER
 04/17/1997 - 04/11/1999 FY98: \$8,875 Total: \$25,048
Prin. Invest.: D C AKRAGARTY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4115 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5861**
RXTE SEARCH FOR THE CENTRIFUGAL BARRIER IN TRANSIE
 04/17/1997 - 04/11/1999 FY98: \$0 Total: \$25,842
Prin. Invest.: S R RAPPAPORT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4129 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5862**
THE PREBIOTIC SYNTHESIS OF POLYNUCLEOTIDES AND POLYPEPTIDES
 03/11/1997 - 11/30/1997 FY98: \$0 Total: \$72,370
Prin. Invest.: D RICH
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4135 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5863**
FAST SPECTROSCOPY OF Z SOURCES
 03/17/1997 - 03/14/1998 FY98: \$0 Total: \$8,000
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4136 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5864**
THE 63 MS PULSAR PSR J1105-6107
 03/17/1997 - 03/14/1998 FY98: \$0 Total: \$35,348
Prin. Invest.: V KASPI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 4360 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5865**
CORRELATIONS OF SOLAR WIND DATA FROM INTERBALL, IM
 04/11/1997 - 04/14/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: M I PAULARENA
Tech. Officer: GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4400 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5866**
X-RAY, OPTICAL REVERBERATION STUDY OF NEARBY BROAD
 04/16/1997 - 04/14/1998 FY98: \$0 Total: \$10,106
Prin. Invest.: R A REMILARD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4434 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5867**
RESEARCH PARTICIPATION IN THE MARS ORBITING LASER
 04/28/1997 - 12/31/1999 FY98: \$152,476 Total: \$207,415
Prin. Invest.: G H PETTENGILL
Tech. Officer: GSFC/D E SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4485 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5868**
TIMING AND SPECTRAL STUDY OF 4U 1538-52
 05/06/1997 - 04/30/1999 FY98: \$0 Total: \$20,130
Prin. Invest.: G CLARK
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4486 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5869**
LUMINOSITY DEPENDENCE OF THE X-RAY SPECTRA AND VAR SOURCES
 05/08/1997 - 04/30/1998 FY98: \$0 Total: \$16,000
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4555 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5870**
PLANETARY TECTONICS AND VOLCANISM
 06/23/1997 - 03/31/1999 FY98: \$171,683 Total: \$368,383
Prin. Invest.: D R ZUBER
Tech. Officer: GSFC/H BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4636 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5871**
OBSERVATIONS OF THE RAPID BURSTER IN OUTBURST (CYC OBSERVATIONS OF THE RAPIDBURSTER IN OUTBURST (CY
 06/06/1997 - 05/31/1998 FY98: \$0 Total: \$26,015
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4655 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5872**
ON THE APPLICATION OF THE ADJOINT METHOD TO THE CM
 05/27/1997 - 05/31/1998 FY98: \$0 Total: \$123,000
Prin. Invest.: P W RIZZOLI
Tech. Officer: GSFC/B C DOUGLAS
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4733 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5873**
FAST TIMING AND SPECTROSCOPY OF Z SOURCES
 06/04/1997 - 06/30/1999 FY98: \$0 Total: \$30,000
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4768 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5874**
PHASE EQUILIBRIUM INVESTIGATIONS OF PLANETARY MATE
 06/09/1997 - 06/30/1999 FY98: \$20,000 Total: \$80,000
Prin. Invest.: P L GROVE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4778 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5875**
RAINFALL-LIGHTNING RELATIONSHIPS ON A GLOBAL BASIS
 06/18/1997 - 05/31/1999 FY98: \$206,067 Total: \$298,744
Prin. Invest.: E R WILLIAMS
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4805 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5876**
ORBITAL-PHASE-RESOLVED STUDY OF OAO 1657-415 IN SP
 08/01/1997 - 07/31/1999 FY98: \$0 Total: \$16,173
Prin. Invest.: D CHAKRABARTY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4806 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5877**
MARS OBSERVER LASER ALTIMETER
 08/01/1997 - 07/31/1999 FY98: \$249,193 Total: \$491,128
Prin. Invest.: M ZUBER
Tech. Officer: GSFC/D SMITH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4807 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5878**
GPS MEASUREMENTS OF LOCALIZED INTRACONTINENTAL DEF HAN
 08/01/1997 - 07/31/1999 FY98: \$70,000 Total: \$124,000
Prin. Invest.: P MOLNAR
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4833 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5879**
INVESTIGATIONS OF THE INTERPLANETARY MEDIUM
 06/17/1997 - 11/30/1997 FY98: \$0 Total: \$60,000
Prin. Invest.: D J LAZARUS
Tech. Officer: GSFC/M A FORMAN
CASE Category: 11 - ASTRONOMY

NAG 5 4870 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5880**
X-RAY, OPTICAL REVERBERATION STUDY OF 3C120
 06/26/1997 - 06/30/1999 FY98: \$0 Total: \$13,483
Prin. Invest.: R A REMILLARD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4874 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5881**
THE 63 MS PULSAR PSR J1105-6107
 07/03/1997 - 07/31/1997 FY98: -\$35,348 Total: \$0
Prin. Invest.: V KASPI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 4879 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5882**
XTE OBSERVATIONS OF PSR1259-63 NEAR APASTRON
 07/15/1997 - 07/14/1998 FY98: \$0 Total: \$3,000
Prin. Invest.: V KASPI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4880 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5883**
THE FACTORS CONTROLLING POLEWARD HEAT TRANSPORT IN
 07/15/1997 - 04/30/1999 FY98: \$53,000 Total: \$103,640
Prin. Invest.: P H STONE
Tech. Officer: GSFC/A HOU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4905 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5884**
A COUPLED REMOTE SENSING & MODELING APPROACH TO ES MOISTURE
& TEMPERATURE IN THE LAND BIOSPHERE SYST
 06/19/1997 - 03/31/1999 FY98: \$0 Total: \$58,919
Prin. Invest.: D ENTEKHABI
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4928 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5885**
DATA-DRIVEN MODELS TO DESCRIBE ASTTonaut PERFORMAN FULL-
BODY DYNAMICS AND POSTURAL CONTROL
 06/23/1997 - 12/31/1998 FY98: \$0 Total: \$101,683
Prin. Invest.: D J NEWMAN *Prin. Invest.:* NONE
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4959 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5886**
ASCA STUDIES OF THE NEAREST REGION OF STAR FORMATI
 06/27/1997 - 06/30/1999 FY98: \$0 Total: \$20,100
Prin. Invest.: J KASTNER
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 4989 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5887**
CENTER FOR QUANTITATIVE CARDIOVASCULAR PHYSIOLOGY, ANALYSIS
 06/27/1997 - 06/30/1999 FY98: \$200,000 Total: \$375,000
Prin. Invest.: R COHEN
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 5105 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5888**
A THREE-YEAR PROGRAM OF MICRO AND NANO SYSTEM TECHNOLOGY
DEVELOPMENT FOR X-RAY ASTRONOMY
 01/17/1997 - 01/31/1999 FY98: \$305,000 Total: \$605,000
Prin. Invest.: C R CANIZARES
Tech. Officer: GSFC/B FLOWERS
CASE Category: 13 - PHYSICS

NAG 5 6062 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5889**
RECENT AND ACTIVE EVOLUTION OF THE EASTERN TIBETAN IPLINARY
STUDY
 07/28/1997 - 07/14/1999 FY98: \$50,604 Total: \$101,577
Prin. Invest.: B F ELD
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6063 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5890**
VERTICAL ACCURACY IMPROVEMENT FOR VLBI AND GPS
 08/01/1997 - 07/14/1999 FY98: \$90,140 Total: \$182,990
Prin. Invest.: A NIELL
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6079 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5891**
FUNDING FOR MIT PROPOSAL ENTITLED "STRUCTURAL DYNA ANALYSES
AND SIMULATIONS FOR NASA'S NGST" PROPOSA
 09/11/1997 - 08/31/1998 FY98: \$0 Total: \$57,372
Prin. Invest.: D MILLER
Tech. Officer: GSFC/W HAYDEN
CASE Category: 46 - MECHANICAL ENGR

NAG 5 6117 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5892**
SUPPORT OF THE DPS(DIVISION OF PLANETARY SCIENCES) MASACHU-
SETTS
 08/08/1997 - 03/31/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: D BINZEL, NONE
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 6129 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5893**
MODELING THE EXTENDED NEUTRAL ATMOSPHERE AND PLASM SATURN
 08/04/1997 - 07/14/1999 FY98: \$17,879 Total: \$74,579
Prin. Invest.: D RICHARDSON
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6130 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5894**
GENERAL CIRCULATION OF PLANETARY ATMOSPHERES
 08/04/1997 - 06/30/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: D C OWLING
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6145 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5895**
CRUSTAL DEFORMATION AND EARTHQUAKE HAZARDS IN THE REGION
 08/21/1997 - 08/31/1999 FY98: \$100,000 Total: \$250,000
Prin. Invest.: R E REILINGER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6206 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5896**
TOPOGRAPHY AND THE LARGE-SCALE SPATIAL DISTRIBUTIO
 09/23/1997 - 08/31/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: E E TAHIR
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6224 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5897**
ESTIMATION OF THE CIRCULATION OF THE PACIFIC OCEAN ALTIMETRIC DATA WITH A GENERAL CIRCULATION MODEL
 08/21/1997 – 08/31/1999 FY98: \$103,000 Total: \$201,400
Prin. Invest.: P WUNSCH, NONE
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6304 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5898**
GLOBAL SCALE CIRCULATION PROCESSES
 10/10/1997 – 07/14/1999 FY98: \$166,000 Total: \$166,000
Prin. Invest.: D S LINDZEN
Tech. Officer: GSFC/K H BERGMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6333 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5899**
MONITORING THE BLACK HOLE CANDIDATE GRS1915+105
 10/02/1997 – 09/30/1999 FY98: \$16,317 Total: \$16,317
Prin. Invest.: E MORGAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 6352 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5900**
SURFACE DEFORMATION AND GRAVITY CHANGES FROM SURFA LOADS
 09/26/1997 – 09/14/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: B HAGER
Tech. Officer: GSFC/E J LINSTROM
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6370 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5901**
MICROMACHINED MILLIMETER AND SUBMILLIMETER-WAVE SI FOR REMOTE SENSING
 09/25/1997 – 07/31/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: D HU
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6390 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5902**
USING DATA ASSIMILATION TO INFER SOIL MOISTURE FROM REMOTELY SENSED MEASUREMENTS: A FEASIBILITY STUDY
 10/17/1997 – 08/31/1998 FY98: \$120,475 Total: \$120,475
Prin. Invest.: D MCLAUGHLIN
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6394 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5903**
MUTUAL INTERACTION OF SOIL MOISTURE AND CLIMATE DYNAMICS
 10/17/1997 – 09/30/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: D ENTEKHABI
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6441 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5904**
EXTENSIONS AND TESTING OF LANDSURFACE HYDROLOGIC PARAMETERIZATIONS IN THE GISS GCM
 11/13/1997 – 09/30/1999 FY98: \$114,137 Total: \$114,137
Prin. Invest.: D ENTEKHABI
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6473 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5905**
SHOCK EVOLUTION IN THE OUTER HELIOSPHERE
 11/13/1997 – 10/31/1998 FY98: \$49,026 Total: \$49,026
Prin. Invest.: K PAULARENA
Tech. Officer: GSFC/J LING
CASE Category: 11 – ASTRONOMY

NAG 5 6523 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5906**
STUDIES OF TECHNIQUES FOR THE DETECTION OF PLANETS OF OTHER SOLAR SYSTEMS
 12/16/1997 – 06/30/1998 FY98: \$45,000 Total: \$45,000
Prin. Invest.: B BURKE
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 – ASTRONOMY

NAG 5 6592 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5907**
ON THE SPACE-TIME ORGANIZATION OF SOIL MOISTURE FIELDS: DYNAMICS AND INTERACTION WITH THE ATMOSPHERE
 11/07/1997 – 08/31/1999 FY98: \$45,000 Total: \$45,000
Prin. Invest.: D ENTEKHABI
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6594 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5908**
DEVELOPMENT OF AN INTEGRATED GEOSCIENCE REMOTE SENSING AND GIS LABORATORY
 12/06/1997 – 10/31/1998 FY98: \$99,217 Total: \$99,217
Prin. Invest.: C BURCHFIELD
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6600 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5909**
MIT/CAVS PROGRAM OF CREATIVE VISUALIZATION FOR OCEAN DATA
 12/08/1997 – 11/14/1998 FY98: \$68,975 Total: \$68,975
Prin. Invest.: S BENTON, NONE
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6710 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5910**
PHYSICAL MECHANISMS CONTROLLING UPPER TROPOSPHERIC WATER VAPOR AS REVEALED BY MLS DATA FROM URS
 12/17/1997 – 11/30/1998 FY98: \$100,000 Total: \$100,000
Prin. Invest.: D NEWELL
Tech. Officer: GSFC/A DOUGLASS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6722 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5911**
EARLY PRECAMBRIAN CARBONATE AND EVAPORITE SEDIMENTS: CONSTRAINTS ON ENVIRONMENTAL AND BIOLOGICAL PROCESSES
 12/16/1997 – 09/30/1998 FY98: \$116,833 Total: \$116,833
Prin. Invest.: J GROTZINGER
Tech. Officer: GSFC/M MEYER
CASE Category: 11 – ASTRONOMY

NAG 5 6867 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5912**
ISO GUEST OBSERVER DATA ANALYSIS
 02/19/1998 – 06/01/1998 FY98: \$0 Total: \$0
Prin. Invest.: R BARVAINIS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7012 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5913**
JETS IN AGN: NUMERICAL SIMULATIONS IN RELATIVISTIC MHD - ATP
 02/19/1998 - 02/28/1999 FY98: \$59,000 Total: \$59,000
Prin. Invest.: M H VAN PUTTEN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7028 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5914**
SAX PROPOSALS - STUDY OF GRO J1744-28 IN QUIESCENT AND TOO OBSERVATIONS OF AN OUTBURST
 02/20/1998 - 02/28/1999 FY98: \$7,000 Total: \$7,000
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 7131 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5915**
XTE PROPOSAL - RXTE OBSERVATIONS OF THE RADIO PULSAR PSR J1105-6107
 03/02/1998 - 02/28/1999 FY98: \$15,750 Total: \$15,750
Prin. Invest.: V KASPI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7162 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5916**
ESTIMATING THE OCEAN FLOW FIELD FROM COMBINED SEA SURFACE TEMPERATURE AND SEA SURFACE HEIGHT DATA
 04/17/1998 - 02/28/2001 FY98: \$148,020 Total: \$148,020
Prin. Invest.: D STAMMER
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7194 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5917**
ATLANTIC OCEAN PROCESSES FROM SUBPOLAR REGIONS TO THE SOUTHERN SUBTROPICAL GYRE: MODEL/DATA COMPARISON
 03/26/1998 - 03/31/2001 FY98: \$139,680 Total: \$139,680
Prin. Invest.: P RIZZOLI
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7204 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5918**
PARTICIPATION IN THE GISS EOS PROPOSAL
 03/25/1998 - 01/14/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: P H STONE
Tech. Officer: GSFC/D RIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7242 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5919**
XTE PROPOSAL - CHARACTERIZING THE LOW STATE OF GRS 1737-31, A NEW BLACK HOLE CANDIDATE
 04/15/1998 - 04/14/1999 FY98: \$5,050 Total: \$5,050
Prin. Invest.: W CUI
Prin. Invest.: NONE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7279 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5920**
XTE PROPOSAL - DOES PRECESSION OF THE ACCRETION DISK OF SMC X-1 CAUSE A VARIATION IN THE PULSE PERIOD?
 04/15/1998 - 04/14/1999 FY98: \$10,125 Total: \$10,125
Prin. Invest.: G W CLARK, NONE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7281 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5921**
XTE PROPOSAL - A COORDINATED RXTE/ASCA STUDY OF AB SORPTION DIPS IN CIRCIUS X-1 AT PHASE ZERO
 04/15/1998 - 04/14/1999 FY98: \$5,998 Total: \$5,998
Prin. Invest.: H J BRADT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7328 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5922**
XTE PROPOSAL - SIMULTANEOUS X-RAY/ULTRAVIOLET TIMING OF 4U 1626-67
 04/24/1998 - 04/30/1999 FY98: \$8,733 Total: \$8,733
Prin. Invest.: D CHAKRABARTY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7336 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5923**
XTE PROPOSAL - STUDY OF KHZ QPO IN Z SOURCES
 04/24/1998 - 04/30/1999 FY98: \$4,876 Total: \$4,876
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7337 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5924**
XTE PROPOSAL - MONITORING OBSERVATIONS OF GRO J1744-28
 04/24/1998 - 04/30/1999 FY98: \$4,375 Total: \$4,375
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7344 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5925**
XTE PROPOSAL (30165) - THE DIFFERENT STATES OF GX 339-4
 06/01/1998 - 05/31/1999 FY98: \$5,500 Total: \$5,500
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7359 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5926**
MO & DA ON THE SWIE INSTRUMENT ON THE WIND SPACECRAFT
 05/05/1998 - 05/14/1999 FY98: \$192,000 Total: \$192,000
Prin. Invest.: A L RARUS
Tech. Officer: GSFC/K OGILVIE
CASE Category: 99 - MULTIDISCIPL, OTHER

NAG 5 7374 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5927**
XTE PROPOSAL - TEMPORAL AND SPECTRAL PROPERTIES OF KS 1731-260
 05/12/1998 - 05/11/1999 FY98: \$7,127 Total: \$7,127
Prin. Invest.: E H MORGAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7375 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5928**
XTE PROPOSAL - SPECTRAL AND TIMING INVESTIGATIONS OF DWARF NOVAE SELECTED IN HARD X-RAYS
 05/12/1998 - 05/11/1999 FY98: \$6,746 Total: \$6,746
Prin. Invest.: R A REMILLARD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7408 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5929**
XTE PROPOSAL (30071) – OBSERVATIONS OF BLACK-HOLE X-RAY BINARIES IN OUTBURST
 05/28/1998 – 05/31/1999 FY98: \$7,005 Total: \$7,005
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7424 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5930**
XTE PROPOSAL (30705) – SNAPSHOTS OF NEW ASM/BATSE TRANSIENT SOURCES WITH RXTE
 05/27/1998 – 05/31/1999 FY98: \$5,959 Total: \$5,959
Prin. Invest.: W CUI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7475 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5931**
THE VALUE OF DISTRIBUTED MODELING TO FLOOD FORECASTING
 06/18/1998 – 08/31/2001 FY98: \$382,143 Total: \$382,143
Prin. Invest.: R BRASS
Tech. Officer: GSFC/E ENGMAN
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 7476 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5932**
XTE PROPOSAL (30078) – RXTE OBSERVATIONS OF THE RAPID BURSTER IN OUTBURST
 06/01/1998 – 05/31/1999 FY98: \$8,751 Total: \$8,751
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7479 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5933**
XTE PROPOSAL (30099) – ORBITAL DETERMINATION OF X PERSEI
 06/01/1998 – 05/31/1999 FY98: \$10,473 Total: \$10,473
Prin. Invest.: S A RAPPAPORT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7480 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5934**
XTE PROPOSAL (30269) – BL LACS IN X-RAY OUTBURST
 06/01/1998 – 05/31/1999 FY98: \$6,012 Total: \$6,012
Prin. Invest.: R A REMILLARD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7481 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5935**
XTE PROPOSAL (30079) – SIMULTANEOUS RXTE AND RADIO OBSERVATIONS OF THE RAPID BURSTER IN OUTBURST
 06/01/1998 – 05/31/1999 FY98: \$5,000 Total: \$5,000
Prin. Invest.: W LEWIN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7484 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5936**
XTE PROPOSAL (30188) – MAPPING THE RISING PHASE OF X-RAY OUTBURSTS IN SOFT X-RAY TRANSIENTS
 06/01/1998 – 05/31/1999 FY98: \$6,467 Total: \$6,467
Prin. Invest.: W CUI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7487 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5937**
THIS PR PROVIDES FUNDING TO A MIT GRANT ON "PASSIVE MICROWAVE STUDIES OF ATMOSPHERIC PRECIPITATION A
 06/05/1998 – 06/14/1999 FY98: \$120,000 Total: \$120,000
Prin. Invest.: D STAELIN
Tech. Officer: GSFC/J C SHIUE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 7517 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5938**
XTE PROPOSAL (30137) TARGET OF OPPORTUNITY POSITIONING OF TRANSIENT X-RAY PULSARS
 06/04/1998 – 06/14/1999 FY98: \$6,815 Total: \$6,815
Prin. Invest.: D CHAKRABARTY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7525 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5939**
USE OF SATELLITE REMOTE SENSING TO STUDY THE ROLE OF RAINFALLS IN TROPICAL CLIMATE
 06/08/1998 – 09/30/1999 FY98: \$112,000 Total: \$112,000
Prin. Invest.: E ELTAHIR
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 8 935 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5940**
R/S "PRECIPITATION AND LIGHTNING IN TROPICAL CONVECTION"
 09/08/1992 – 09/07/1998 FY98: \$0 Total: \$242,880
Prin. Invest.: E R WILLIAMS
Tech. Officer: MSFC/R J BLAKESLEE
CASE Category: 11 – ASTRONOMY

NAG 8 1069 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5941**
DROPLETS RESEARCH
 09/12/1994 – 11/30/1996 FY98: \$238 Total: \$99,764
Prin. Invest.: M FLEMING, G TRAPAGA
Tech. Officer: MSFC/M ROBINSON
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1183 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5942**
TEMPUS MICROGRAVITY SCIENCE
 11/09/1995 – 11/06/1998 FY98: \$266,245 Total: \$664,245
Prin. Invest.: M FLEMING, G TRAPAGA
Tech. Officer: MSFC/T DCLOACH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1230 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5943**
ALLOY UNDER COOLING EXPERIMENTS
 10/25/1995 – 10/24/1998 FY98: \$263,970 Total: \$607,970
Prin. Invest.: M FLEMING
Tech. Officer: GSFC/T DELOACH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1253 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5944**
RESEARCH "APPLICATION OF PARALLEL COMPUTING FOR TWO AND THREE D MODELING OF BULK CRYSTAL GROWTH
 06/24/1996 – 06/30/1998 FY98: \$82,818 Total: \$295,817
Prin. Invest.: R A BROWN
Tech. Officer: MSFC/C R TALLEY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1401 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5945**
DEVELOPMENT OF A OPTICAL CHARACTERIZATION FACILITY FOR D-X
DEFECTS IN BSO
 09/02/1997 - 03/31/1998 FY98: \$0 Total: \$34,859
Prin. Invest.: A F WHITT
Tech. Officer: MSFC/DOTY
CASE Category: 46 - MECHANICAL ENGR

NAG 8 1435 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5946**
TOWARDS PRECISION EXPERIMENTS WITH BOSE-EINSTEIN CONDENSATES
 02/03/1998 - 01/31/2003 FY98: \$47,000 Total: \$47,000
Prin. Invest.: W KETTERLE
Tech. Officer: MSFC/J POE
CASE Category: 13 - PHYSICS

NAG 8 1487 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5947**
IDENTIFICATION AND CONTROL OF GRAVITY RELATED DEFECT FORMATION DURING MELT GROWTH OF ELECTROOPTIC
 02/13/1998 - 01/31/2002 FY98: \$96,250 Total: \$96,250
Prin. Invest.: A WITT
Tech. Officer: MSFC/J FRAZIER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 8 1524 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5948**
DIRECT USE OF SATELLITE REMOTE SENSING IN THE ESTIMATION OF HYDROLOGIC TRANSPORTS
 05/22/1998 - 08/31/1998 FY98: \$140,000 Total: \$140,000
Prin. Invest.: D ENTEKHABI
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 602 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5949**
EFFECT OF MICROGRAVITY ON MICROBIAL SECONDARY METABOLISM
 05/05/1992 - 03/04/1999 FY98: \$0 Total: \$416,648
Prin. Invest.: A L DEMAINE
Tech. Officer: JSC/D L PIERSON
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 655 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5950**
MICROGRAVITY STUDIES OF CELL POLYMER CARTILAGE IMPLANTS
 01/22/1993 - 07/31/1997 FY98: -\$2,065 Total: \$627,935
Prin. Invest.: L E FREED
Tech. Officer: JSC/S GONDA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 836 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5951**
MICROGRAVITY TISSUE ENGINEERING
 09/19/1995 - 08/31/1999 FY98: \$501,000 Total: \$3,721,496
Prin. Invest.: L E FREED
Tech. Officer: JSC/N R PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 1003 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5952**
MICROGRAVITY INVESTIGATION & CREW REACTION IN 0-G
 04/29/1998 - 04/29/1999 FY98: \$86,465 Total: \$86,465
Prin. Invest.: D J NEWMAN, S BECK
Tech. Officer: JSC/J DETROVE
CASE Category: 56 - MEDICL

NAG 9 1004 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5953**
ADVANCED DISPLAYS & CONTROLS FOR 6 DOF ORIENTATION
 05/06/1998 - 05/05/1999 FY98: \$87,244 Total: \$87,244
Prin. Invest.: C H OMAN
Tech. Officer: JSC/J DETROVE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 525 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5954**
STUDIES OF GLOBAL SCALE EVALUATION PROCESS OF THE EARTH'S ATMOSPHERE
 11/01/1983 - 08/31/1997 FY98: \$0 Total: \$1,717,065
Prin. Invest.: R S LINDZEN, R DOLE
Tech. Officer: HQ/J R KAKAR, HQ/J THEON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 706 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5955**
SOLAR SYSTEM DYNAMICS
 02/01/1985 - 06/30/1997 FY98: \$0 Total: \$851,523
Prin. Invest.: J W WISDOM
Tech. Officer: HQ/J R UNDERWOOD, HQ/J M BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 732 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5956**
GLOBAL ATMOSPHERIC GASES EXPERIMENT (GAGE)
 11/01/1984 - 07/31/1997 FY98: \$0 Total: \$2,608,120
Prin. Invest.: R C PRINN
Tech. Officer: HQ/R D MCPETERS, HQ/M J PRATHER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 1335 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5957**
CENTER FOR SPACE ENGINEERING RESEARCH
 08/09/1988 - 09/30/1997 FY98: \$0 Total: \$8,957,195
Prin. Invest.: E F CRAWLEY, E F CRAWLEY
Tech. Officer: HC/G I JOHNSTON
CASE Category: 49 - ENGINEERING, OTHER

NAGW 1386 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5958**
A STUDY OF INTERFEROMETRIC METHODS FOR THE DETECTOR PLANETS
 08/03/1988 - 01/30/1998 FY98: \$0 Total: \$605,000
Prin. Invest.: B J BURKE
Tech. Officer: HC/C PILCHER
CASE Category: 11 - ASTRONOMY

NAGW 1450 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5959**
PHOTOMETRY OF PLUTO-CHARON MUTUAL EVENTS
 08/23/1988 - 06/10/1997 FY98: \$0 Total: \$463,000
Prin. Invest.: R B NZEL
Tech. Officer: HC/J H RAHE
CASE Category: 11 - ASTRONOMY

NAGW 1550 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5960**
INVESTIGATIONS OF THE INTERPLANETARY MEDIUM
 12/06/1988 - 05/31/1998 FY98: -\$1,837 Total: \$696,950
Prin. Invest.: A J LAZARUS
Tech. Officer: HQ/M M MELLOTT, HQ/W V JONES
CASE Category: 13 - PHYSICS

NAGW 1667 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5961**
INELASTIC COLLISION PROCESSES IN OZONE & THEIR RELATION
 03/08/1989 – 06/30/1997 FY98: \$0 Total: \$567,915
Prin. Invest.: J I STEINFELD
Tech. Officer: HQ/M J KURYLO, HQ/S G TILFORD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAGW 2003 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5962**
EXPERIMENTAL AND OBSERVATIONAL INVESTIGATIONS IN HIGH ENERGY
ASTROPHYSICS
 04/20/1990 – 01/30/1998 FY98: \$0 Total: \$2,049,570
Prin. Invest.: G CLARK
Tech. Officer: HQ/L J KALUZIENSKI, HQ/A N BUNNER
CASE Category: 11 – ASTRONOMY

NAGW 2014 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5963**
SPACE ENGINEERING (SECTION II)
 02/28/1990 – 12/31/1997 FY98: \$0 Total: \$751,482
Prin. Invest.: E F CRAWLEY, E CRAWLEY, J W MAR
Tech. Officer: HQ/E W BULL, HQ/S L VENNERI
CASE Category: 49 – ENGINEERING, OTHER

NAGW 2089 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5964**
CONTINUED DEVELOPMENT OF AN EXPLOSIVE TRANSIENT CAMERA FOR
IDENTIFICATION OF GAMMA RAY BURST SOURCE
 06/06/1990 – 01/30/1998 FY98: \$0 Total: \$1,609,848
Prin. Invest.: G RICKER
Tech. Officer: HQ/L J KALUZIENSKI, HQ/A N BUNNER
CASE Category: 11 – ASTRONOMY

NAGW 2341 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5965**
THE PREBIOTIC SYNTHESIS OF POLYNUCLEOTIDES AND POLYNUCLEO-
TIDE DIRECTED POLYPEPTIDES
 02/14/1991 – 11/30/1996 FY98: -\$9,554 Total: \$330,345
Prin. Invest.: A RICH
Tech. Officer: HQ/J D RUMMEL
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAGW 2795 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5966**
EVOLUTION OF LATE ARCHEAN CARBONATE SEDIMENTS, STRATOMATO-
LITES, AND ENVIRONMENTS
 12/18/1991 – 09/30/1997 FY98: \$0 Total: \$420,617
Prin. Invest.: J P GROTZINGER
Tech. Officer: HQ/J D RUMMEL
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 3586 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5967**
PHASE EQUILIBRIUM INVESTIGATIONS OF PLANETARY MATERIALS
 05/12/1993 – 06/30/1997 FY98: -\$35 Total: \$214,250
Prin. Invest.: T GROVE
Tech. Officer: HQ/J BOYCE
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 3936 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5968**
THEORETICAL STUDY OF SOLAR ACOUSTIC OSCILLATIONS
 04/11/1994 – 06/30/1997 FY98: -\$137 Total: \$172,862
Prin. Invest.: P KUMAR
Tech. Officer: HQ/W J WAGONER, HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 3958 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5969**
VISUAL VESTIBULAR INTERACTION
 05/10/1994 – 01/30/1998 FY98: -\$416 Total: \$989,584
Prin. Invest.: L R YOUNG, C M OMAN
Tech. Officer: HQ/F M SULZMAN
CASE Category: 56 – MEDICAL

NAGW 4163 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5970**
EXTENSIONS AND TESTING OF HYDROLOGIC PARAMETERIZATIONS IN
THE GISS GCM
 10/24/1994 – 12/31/1997 FY98: -\$36 Total: \$214,833
Prin. Invest.: D ENTEKHABI, P S EAGLESAN
Tech. Officer: HQ/R A SCHIFFER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4164 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5971**
MUTUAL INTERACTION OF SOIL MOISTURE AND CLIMATE DYNAMICS
 10/24/1994 – 12/31/1997 FY98: \$0 Total: \$192,500
Prin. Invest.: D ENTEKHABI
Tech. Officer: HQ/M Y WEI, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4333 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5972**
SPACELAB ROTATING CHAIR EXTENDED DATA ANALYSIS
 03/04/1995 – 01/30/1998 FY98: \$0 Total: \$138,897
Prin. Invest.: C M OMAN
Tech. Officer: HQ/R J WHITE
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 4336 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5973**
DEVELOPMENT OF DATA-DRIVEN MODELS TO DESCRIBE ASTRONAUT
PERFORMANCE IN MICROGRAVITY
 03/15/1995 – 01/14/1998 FY98: -\$8 Total: \$173,945
Prin. Invest.: D J NEWMAN
Tech. Officer: HQ/R J WHITE
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 4351 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5974**
INVESTIGATION OF VENUS SURFACE ELECTRICAL AND MECHANICAL
PROPERTIES
 03/15/1995 – 09/30/1997 FY98: \$0 Total: \$110,000
Prin. Invest.: P FORD
Tech. Officer: HQ/H BRINTON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAGW 4508 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5975**
A COUPLED REMOTE SENSING AND MODELING APPROACH TO ESTIMA-
TION OF SOIL MOISTURE
 05/15/1995 – 09/30/1997 FY98: -\$833 Total: \$108,717
Prin. Invest.: D ENTEKHABI, E NJOKU
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4750 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5976**
ON THE SPACE TIME ORGANIZATION OF SOIL MOISTURE FIELDS: DYNAM-
ICS & INTERACTION WITH ATMOSPHERE
 09/22/1995 – 08/31/1997 FY98: \$0 Total: \$86,841
Prin. Invest.: D ENTEKHABI, I RODRIGUEZ-ITUBE
Tech. Officer: HQ/M Y WEI, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4762 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5977**
USING DATA ASSIMILATION
 09/18/1995 - 08/31/1998 FY98: \$0 Total: \$224,635
Prin. Invest.: D MCLAUGHLIN, D ENTEKHABI
Tech. Officer: HQ/M Y WEI, HQ/A C JANETOS
CASE Category: 41 - AERONAUTICAL ENGR

NAGW 4763 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5978**
A STUDY OF THE FEASIBILITY OF A GAMMA-RAY BURST ASTROMETRY MISSION, THE ENERGETIC TRANSIENT ARRAY
 09/25/1995 - 09/30/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: G R RICKER
Tech. Officer: HQ/M KAPLAN, HQ/D W WEEDMAN
CASE Category: 13 - PHYSICS

NAGW 4971 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5979**
LUNAR ORIGIN AND THERMAL EVOLUTION: INVESTIGATIONS USING CLEMENTINE AND APOLLO DATA
 02/24/1996 - 11/30/1996 FY98: -\$247 Total: \$54,753
Prin. Invest.: M T ZUBER
Tech. Officer: HQ/J BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 5021 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5980**
PLANETARY TECTONICS AND VOLCANISM
 04/03/1996 - 03/31/1998 FY98: \$0 Total: \$215,800
Prin. Invest.: M T ZUBER
Tech. Officer: HQ/H BRINTON, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 5181 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5981**
RESTORATION OF PIONEER AND SOLRAD DATA SETS
 08/27/1996 - 09/30/1997 FY98: -\$4,430 Total: \$10,570
Prin. Invest.: D J LAZARUS
Tech. Officer: HQ/J B WILLET
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 5201 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5982**
USE OF SATELLITE REMOTE SENSING TO STUDY THE ROLE OF RAINFALL IN TROPICAL CLIMATE
 09/25/1996 - 06/30/1997 FY98: \$0 Total: \$110,900
Prin. Invest.: E ELTAHIR
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5245 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5983**
ESTIMATION OF THE CIRCULATION OF PACIFIC OCEAN USING TOMOGRAPHIC & ALTIMETER DATA
 11/21/1996 - 09/30/1997 FY98: \$0 Total: \$89,690
Prin. Invest.: C WUNSCH
Tech. Officer: HQ/B C DOUGLAS, HQ/R C HARRISS
CASE Category: 33 - OCEANOGRAPHY

NAS 1 18690 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5984**
MID-DECK 0-GRAVITY DYNAMICS EXPERIMENT
 12/06/1988 - 09/30/1998 FY98: \$149,043 Total: \$6,053,900
Prin. Invest.: E CROWLEY
Tech. Officer: LARC/L G CLARK, LARC/S M BECK
CASE Category: 42 - ASTRONAUTICAL ENGR

NAS 3 27550 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5985**
MODELING OF ENVIRONMENTALLY INDUCED CHARGING IN COMPOSITE SPACE STRUCTURE
 06/12/1995 - 07/28/1998 FY98: \$0 Total: \$179,189
Prin. Invest.: H J MC MANUS
Tech. Officer: L J RC/R CHOCK
CASE Category: 41 - AERONAUTICAL ENGR

NAS 5 30612 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5986**
ALL SKY MONITOR INSTRUMENTS
 12/15/1989 - 01/31/1999 FY98: \$1,460,620 Total: \$25,085,531
Prin. Invest.: H HRADT
Tech. Officer: GSFC/W DAVIS
CASE Category: 11 - ASTRONOMY

NAS 5 31376 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5987**
RECURSIVE ESTIMATION OF GEOGRAPHICAL PRODUCTS WITH AIRS/AMSU DATA (EOS INVESTIGATION)
 01/10/1992 - 12/14/2001 FY98: \$210,000 Total: \$1,133,000
Prin. Invest.: D F STACLIN, P W ROSENKRANZ
Tech. Officer: GSFC/E KREINS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAS 5 31721 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5988**
EOS INVESTIGATION "GLOBAL HYDROLOGIC PROCESSES CLIMATE"
 09/19/1991 - 08/31/1999 FY98: \$0 Total: \$703,250
Prin. Invest.: P EAGLESON
Tech. Officer: GSFC/W LAU
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 31728 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5989**
ACQUISITION OF VLBI CORRELATOR
 03/19/1992 - 09/18/1998 FY98: \$1,962,545 Total: \$8,152,661
Prin. Invest.: A R WHITNEY
Tech. Officer: GSFC/B WILDES
CASE Category: 32 - GEOLOGICAL SCIENCE

NAS 5 32353 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5990**
MARK III VLBI SUPPORT
 02/08/1994 - 04/2/1999 FY98: \$1,058,834 Total: \$6,006,144
Prin. Invest.: A NEILL
Tech. Officer: GSFC/W WILDES
CASE Category: 32 - GEOLOGICAL SCIENCE

NAS 5 32929 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5991**
XRAY CCD/FPA FOR ASTRO-E
 04/22/1996 - 03/31/2000 FY98: \$1,098,043 Total: \$3,888,043
Prin. Invest.: D RICKER
Tech. Officer: GSI C/J MURPHY
CASE Category: 13 - PHYSICS

NAS 5 33017 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5992**
GLRS SCIENCE TEAM MEMBER STUDY
 09/01/1989 - 10/31/1998 FY98: \$118,000 Total: \$616,000
Prin. Invest.: T HERRING
Tech. Officer: GSFC/G SOFFEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 8 37716 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5993**
CONDUCT AN X-RAY IMAGING SPECTROSCOPY SCIENTIFIC INVESTIGATION
 07/23/1990 - 03/01/1999 FY98: \$4,261,000 Total: \$73,233,000
 Prin. Invest.: G RICKER
 Tech. Officer: MSFC/N B CUMINGS
 CASE Category: 11 - ASTRONOMY

NAS 8 38249 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5994**
AXAF (HETGS)
 07/13/1990 - 04/01/2001 FY98: \$1,795,000 Total: \$24,040,000
 Prin. Invest.: C R CANIZARES
 Tech. Officer: MSFC/C E WINKLER
 CASE Category: 11 - ASTRONOMY

NAS 9 19536 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5995**
ROLE OF VISUAL CUES IN SPATIAL ORIENTATION
 03/19/1996 - 03/31/1999 FY98: \$362,000 Total: \$818,000
 Prin. Invest.: C M OMAN
 Tech. Officer: SSC/S SAWYER
 CASE Category: 56 - MEDICL

NASW 4690 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5996**
HIGH ENERGY TRANSIENT EXPERIMENT TO DETERMINE ORIG IN AND NATURE OF GAMMA-RAY BURSTS
 03/30/1992 - 11/01/2001 FY98: \$3,242,000 Total: \$20,396,516
 Prin. Invest.: G RICKER
 Tech. Officer: HQ/D GILMAN, HQ/L KALUZIENSKI
 CASE Category: 13 - PHYSICS

NCC 1 259 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5997**
DEVELOPMENT OF AN ACTIVE TWIST ROTOR FOR WIND-TUNN EL TESTING
 06/11/1997 - 10/31/1998 FY98: \$50,001 Total: \$120,001
 Prin. Invest.: N W HAGOOD, IV
 Tech. Officer: LARC/R D JOSLIN
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 570 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5998**
PRINCIPAL INVESTIGATOR IN A BOX
 12/29/1988 - 11/30/1998 FY98: \$100,000 Total: \$2,098,309
 Prin. Invest.: L R YOUNG
 Tech. Officer: ARC/S LAU, ARC/D A ROSENTHAL
 CASE Category: 22 - COMPUTER SCIENCE

NCC 2 985 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **5999**
AUTOMATED FLUID FEATURE EXTRACTION FORM TRANSIENT SIMULATIONS
 04/01/1997 - 03/31/1999 FY98: \$52,535 Total: \$102,462
 Prin. Invest.: R HAIMES
 Tech. Officer: ARC/D L KAO, ARC/A VAZIRI
 CASE Category: 22 - COMPUTER SCIENCE

NCC 2 1040 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6000**
VERTICAL STRUCTURE OF STMOSPHERIC SCALTERS ON JUPI TER, SATURN & NEPTUNE
 05/15/1998 - 01/31/1999 FY98: \$14,170 Total: \$14,170
 Prin. Invest.: H B HAMMEL
 Tech. Officer: ARC/C P MCKAY
 CASE Category: 11 - ASTRONOMY

NCC 2 1044 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6001**
DRIVING PARAMETERS FOR DISTRIBUTED & CENTRALIZED A IR TRANSPORTATION ARCHITECTURES
 06/24/1998 - 05/31/1999 FY98: \$59,961 Total: \$59,961
 Prin. Invest.: E FERON
 Tech. Officer: ARC/B SRIDHAR, ARC/K BILIMORIA
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 4001 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6002**
ALGORITHMS FOR IN-FLIGHT MODIFICATION ALGORITHMS FOR IN-FLIGHT MODIFICATION
 12/16/1993 - 12/31/1997 FY98: \$0 Total: \$255,424
 Prin. Invest.: J D PADUANO
 Tech. Officer: DFRC/J BURKEN, DFRC/R CLARKE
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5253 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6003**
RESEARCH ON HELICOPTER BLADE BENDING MEASUREMENT AND CONTROL
 02/06/1998 - 12/31/1998 FY98: \$9,999 Total: \$9,999
 Prin. Invest.: N D HAM
 Tech. Officer: ARC/J W FLETCHER, ARC/M B TISCHLER
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 265 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6004**
MIT ENGINEERING INTERSHIP PROGRAM
 05/20/1992 - 05/31/1998 FY98: \$0 Total: \$266,978
 Prin. Invest.: J L KERREBROCK
 Tech. Officer: LERC/S A APP
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 414 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6005**
LOBED MIXER OPTIMIZATION FOR ADVANCED EJECTOR GEOMETRICS
 05/09/1995 - 12/21/1998 FY98: \$72,322 Total: \$324,204
 Prin. Invest.: I A WAITZ, E N GREITZER, C S TAN
 Tech. Officer: LERC/J R DEBONIS
 CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 438 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6006**
APPLICATION OF BAYESIAN-VALIDATED COMPUTER SIMULATION SURROGATES TO THE OPTIMIZATION OF SPACE AND TI
 10/23/1995 - 07/31/1997 FY98: \$0 Total: \$20,000
 Prin. Invest.: A J PATERA
 Tech. Officer: LERC/A CHAIT
 CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 610 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6007**
THE EXTENSIONAL RHEOLOGY OF NON-NEWTONIAN MATERIAL EXTENSIONAL RHEOLOGY EXPERIMENT (ERE)
 04/21/1998 - 02/09/2003 FY98: \$150,000 Total: \$150,000
 Prin. Invest.: G H MCKINLEY
 Tech. Officer: LERC/N R HALL
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 3 632 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6008**
MIT ENGINEERING INTERSHIP PROGRAM
 06/30/1998 - 05/31/1999 FY98: \$43,200 Total: \$43,200
 Prin. Invest.: I A WATZ
 Tech. Officer: LERC/L POVINELLI
 CASE Category: 41 - AERONAUTICAL ENGR

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| <p>NCC 4 102 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6009 ADVANCED TECHNIQUES FOR FLUTTER CLEARANCE NEW AWARD 11/08/1995 - 03/31/1998 FY98: -\$874 Total: \$149,973 <i>Prin. Invest.:</i> J D PADUANO, E FERON <i>Tech. Officer:</i> DFRC/M J BRENNER <i>CASE Category:</i> 41 - AERONAUTICAL ENGR</p> | <p>NGT 30232 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6017 GLOBAL CHANGE FELLOWSHIP AWARD 10/05/1994 - 08/31/1997 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> C C HRYSSOSTOMIAIS <i>Tech. Officer:</i> HC/F MULLER-KARGER, HQ/G ASRAR <i>CASE Category:</i> 33 - OCEANOGRAPHY</p> |
| <p>NCC 4 113 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6010 DESIGN AND EVALUATION OF ROBUST RECONFIGURABILITY IN FLIGHT CONTROL SYSTEM 12/11/1997 - 12/31/1998 FY98: \$65,000 Total: \$65,000 <i>Prin. Invest.:</i> J D PADUANO, E FERON <i>Tech. Officer:</i> DFRC/J BURKEN <i>CASE Category:</i> 41 - AERONAUTICAL ENGR</p> | <p>NGT 30251 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6018 GLOBAL CHANGE FELLOWSHIP AWARD 10/06/1994 - 08/11/1997 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> R P JUMB <i>Tech. Officer:</i> HQ/A C JANETOS, HQ/G ASRAR <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE</p> |
| <p>NCC 5 212 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6011 STUDENT RESEARCH ASSISTANTSHIPS FOR THE GODDARD/MI GEO-SCIENCE 07/08/1997 - 12/31/1998 FY98: \$0 Total: \$150,000 <i>Prin. Invest.:</i> T H JORDAN <i>Tech. Officer:</i> GSFC/D E SMITH <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p> | <p>NGT 30309 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6019 GLOBAL CHANGE FELLOWSHIP PROGRAM 08/31/1995 - 08/11/1998 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> C W JNSCH <i>Tech. Officer:</i> HQ/G ASRAR, HQ/M BALTUCK <i>CASE Category:</i> 33 - OCEANOGRAPHY</p> |
| <p>NCC 5 239 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6012 EXAMINE AND CONFIRM THE APPROPRIATENESS OF THE STUD IMP 8 PLASMA KEY PARAMETERS. 09/12/1997 - 09/14/1999 FY98: \$25,804 Total: \$50,706 <i>Prin. Invest.:</i> D LAZARUS <i>Tech. Officer:</i> GSFC/R KESSEL <i>CASE Category:</i> 13 - PHYSICS</p> | <p>NGT 40001 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6020 NATIONAL SPACE GRANT COLLEGE 10/10/1989 - 05/31/1997 FY98: \$0 Total: \$2,556,903 <i>Prin. Invest.:</i> L R YOUNGNGS <i>Tech. Officer:</i> HQ/E T SCHWARTZ <i>CASE Category:</i> 19 - MULTI INTERDISCIPL, OTHER</p> |
| <p>NCC 5 244 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6013 BIOGEOCHEMICAL CYCLES USING MODELS AND DATA 10/24/1997 - 09/30/1998 FY98: \$233,000 Total: \$233,000 <i>Prin. Invest.:</i> J MARSHALL <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> | <p>NGT 51228 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6021 GRADUATE STUDENT RESEARCHERS PROGRAM 05/25/1994 - 06/31/1997 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> D J NEWMAN <i>Tech. Officer:</i> JSC/S GOLDSTEIN <i>CASE Category:</i> 41 - AERONAUTICAL ENGR</p> |
| <p>NCC 5 330 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6014 DEVELOPMENT OF ACCURATE STRUCTURE FOR MOUNTING AND ALIGNING THIN FOIL X-RAY MIRRORS. 05/07/1998 - 05/14/1999 FY98: \$100,000 Total: \$100,000 <i>Prin. Invest.:</i> M SCHATTEBURG <i>Tech. Officer:</i> GSFC/R PETRE <i>CASE Category:</i> 11 - ASTRONOMY</p> | <p>NGT 51407 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6022 GRADUATE STUDENT RESEARCHERS PROGRAM 07/17/1995 - 08/31/1998 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> L W MCKNIGHT <i>Tech. Officer:</i> HQ/L HOLLAND <i>CASE Category:</i> 93 - MULTI INTERDISCIPL, OTHER</p> |
| <p>NCC 9 63 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6015 CONTROL OF FLEXIBLE CONSTRUCTION SYSTEM 08/28/1997 - 10/31/1998 FY98: \$275,000 Total: \$373,991 <i>Prin. Invest.:</i> D W MILLER <i>Tech. Officer:</i> JSC/C PARRA <i>CASE Category:</i> 41 - AERONAUTICAL ENGR</p> | <p>NGT 3 52305 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6023 GRADUATE STUDENT RESEARCHERS PROGRAM 07/31/1995 - 08/31/1997 FY98: -\$22,000 Total: \$22,000 <i>Prin. Invest.:</i> M MARTINEZ-SANCHEZ <i>Tech. Officer:</i> LERC/F M CURRAN <i>CASE Category:</i> 41 - ASTRONAUTICAL ENGR</p> |
| <p>NGT 10032 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6016 SPACE ENGINEERING RESEARCH CENTER (SERC) 12/16/1994 - 09/30/1998 FY98: \$0 Total: \$331,602 <i>Prin. Invest.:</i> E F CRAWLEY <i>Tech. Officer:</i> HQ/V BITTINGER <i>CASE Category:</i> 46 - MECHANICAL ENGR</p> | <p>NGT 3 52346 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 6024 GRADUATE RESEARCHERS STUDENT PROGRAM 07/28/1998 - 06/30/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> S HOGGREG <i>Tech. Officer:</i> LERC/F J MONTAGANI <i>CASE Category:</i> 41 - MECHANICAL ENGR</p> |

NGT 5 4 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6025**
ACTUATORS FOR CONTROL OF MICRO-SATELLITES
 06/22/1995 - 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J L KERREBROCK
Tech. Officer: GSFC/G A SOFFEN, GSFC/D R SKILLMAN
CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 5 25 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6026**
DESIGN AND FABRICATION OF MEMS - BASED SPACECRAFT PROPULSION SYSTEM
 07/15/1996 - 07/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: K BREUER
Tech. Officer: GSFC/G A SOFFEN, GSFC/D ASATO
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 57 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6027**
AN X-RAY SPECTROSCOPIC STUDY OF ELEMENTAL ABUNDANCE SYSTEM WITH ASCA
 08/27/1997 - 02/28/1999 FY98: \$0 Total: \$22,000
Prin. Invest.: G W CLARK
Tech. Officer: GSFC/M S BURRELL
CASE Category: 11 - ASTRONOMY

NGT 5 30084 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6028**
THIRD YEAR: "A SPECTRAL REPRESENTATION OF THE NAT THE OCEAN"
GSRP RECIPIENT: MICHAEL Y. CHECHELNI
 09/10/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: C WUNSCH
Tech. Officer: HQ/G ASRAR
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 30145 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6029**
TWO-WAY SURFACE WATER-GROUNDWATER INTERACTION: SPATIAL ORGANIZATION OF HYDROLOGIC PROCESSES OVER C
 08/31/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: D ENTEKHABI
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40048 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6030**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 01/24/1997 - 01/31/1999 FY98: \$475,000 Total: \$889,999
Prin. Invest.: L R YOUNG
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50037 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6031**
INTERNET ECONOMICS AND INTEROPERABILITY
 08/15/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: L MCKIGHT/BAILEY
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90065 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6032**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 03/17/1997 - 08/14/1999 FY98: \$0 Total: \$48,000
Prin. Invest.: L OSGOOD
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 52816 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6033**
GRADUATE STUDENT RESEARCH PROGRAM
 07/25/1996 - 06/30/1999 FY98: \$18,334 Total: \$62,334
Prin. Invest.: J M KOMMERS
Tech. Officer: MSFC/G FISHMAN
CASE Category: 13 - PHYSICS

NGT 5 52860 MASSACHUSETTS INSTITUTE OF TECHNOLOGY **6034**
CHARACTERIZATION OF THERMAL SUBSYSTEMS FOR A MICROGRAVITY BRIDGMAN CRYSTAL GROWTH FURNACE
 07/23/1998 - 08/13/2000 FY98: \$6,667 Total: \$6,667
Prin. Invest.: A F WITT
Tech. Officer: MSFC/J F DOWDY
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 6132 MT HOLYOKE COLLEGE **6035**
SUMMERMATH FOR MINORITY GIRLS. PROPOSED PERIOD OF 01/01/97-12/31/97
 08/13/1997 - 12/31/1998 FY98: \$117,537 Total: \$235,078
Prin. Invest.: C MORROW
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 21 - MATHEMATICS

NAGW 1792 MT HOLYOKE COLLEGE **6036**
SUMMER MATH PROGRAM FOR MINORITY GIRLS
 06/30/1989 - 12/31/1997 FY98: \$0 Total: \$653,720
Prin. Invest.: J MORROW, C MORROW
Tech. Officer: HQ/B L WHITE, HQ/L WARREN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 8 1254 NORTHEASTERN UNIVERSITY **6037**
THE ROLE OF DYNAMIC NUCLEATION AT MOVING BOUNDARIES IN PHASE AND MICROSTRUCTURE SELECTION
 05/10/1996 - 05/09/2000 FY98: \$120,000 Total: \$345,000
Prin. Invest.: A KARMA, R TRIVEDI
Tech. Officer: MSFC/C R TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1485 NORTHEASTERN UNIVERSITY **6038**
R/S MODELING OF MACROSCOPIC/MICROSCOPIC TRANSPORT AND GROWTH PHENOMENA IN ZEOLITE CRYSTALS UNDER
 04/27/1998 - 05/31/2001 FY98: \$60,000 Total: \$60,000
Prin. Invest.: A SACCO
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NASW 96014 NORTHEASTERN UNIVERSITY **6039**
WRITE NASA HISTORY
 06/13/1996 - 12/31/1997 FY98: \$0 Total: \$153,749
Prin. Invest.: W KAY
Tech. Officer: HQ/R D LAUNIUS
CASE Category: 73 - HISTORY

NCC 8 139 NORTHEASTERN UNIVERSITY **6040**
RESEARCH "CENTER FOR ADVANCED MICROGRAVITY MATERIALS PROCESSING (CAMMP)"
 06/27/1997 - 10/31/1998 FY98: \$1,150,000 Total: \$1,550,000
Prin. Invest.: A SACCO
Tech. Officer: MSFC/M NALL
CASE Category: 49 - ENGINEERING, OTHER

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| NAG 1 2049 TUFTS UNIVERSITY 6041 MOVING LDAPS TO A REGIONAL-BASED PROGRAM NEW NASA RESEARCH GRANT 04/13/1998 - 04/12/1999 FY98: \$15,200 Total: \$15,200 Prin. Invest.: C B ROGERS Tech. Officer: LARC/J M SEATON, LARC/M D CANRIGHT CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NAS 3 97002 TUFTS UNIVERSITY 6049 NRA CONTRACT "HEAT CONDUCTIONS IN CERAMIC COATINGS RELATIONSHIP/MICROSTRUCTURE & EFF. THERMAL COND. 11/07/1996 - 11/07/1998 FY98: \$90,293 Total: \$169,667 Prin. Invest.: M T ACHANOV Tech. Officer: LE RC/R A MILLER CASE Category: 47 - METAL & MATERIALS ENGR |
| NAG 5 4972 TUFTS UNIVERSITY 6042 VLA/SOHO INVESTIGATIONS OF THE SOLAR ATMOSPHERE 06/23/1997 - 01/31/1999 FY98: \$30,000 Total: \$75,000 Prin. Invest.: P R LANG Tech. Officer: GSFC/W J WAGNER CASE Category: 13 - PHYSICS | NCC 2 918 TUFTS UNIVERSITY 6050 EDUCATION, TRAINING & LIFELONG LEARNING IN AERONAUTICS 07/26/1995 - 06/30/1999 FY98: \$113,833 Total: \$570,345 Prin. Invest.: C B ROGERS Tech. Officer: ARC/M J LEON, ARC/W C LIKENS CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAG 5 6269 TUFTS UNIVERSITY 6043 VLA OBSERVATIONS IN SUPPORT OF NASA SOLAR PHYSICS 08/21/1997 - 07/31/1998 FY98: \$0 Total: \$45,000 Prin. Invest.: P R LANG Tech. Officer: GSFC/W G WAGNER CASE Category: 13 - PHYSICS | NCC 3 479 TUFTS UNIVERSITY 6051 DECOUPLING THE ROLE OF INERTIA AND GRAVITY ON PARTICLE DISPERSION 06/01/1996 - 05/1/2000 FY98: \$84,649 Total: \$230,101 Prin. Invest.: C ROGERS Tech. Officer: LEFC/T K GLASGOW CASE Category: 47 - METAL & MATERIALS ENGR |
| NAG 8 1167 TUFTS UNIVERSITY 6044 RESEARCH EVOLUTION OF CRYSTAL & AMORPHOUS PHASE STRUCTURE 12/06/1995 - 05/31/1998 FY98: \$0 Total: \$102,552 Prin. Invest.: P CEBE Tech. Officer: MSFC/B G PENN CASE Category: 47 - METAL & MATERIALS ENGR | NGT 5 50050 TUFTS UNIVERSITY 6052 CONTROL OF PARTICLE CONCENTRATION FIELD IN MICROGRAVITY 08/12/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: C B ROGERS Tech. Officer: GSFC/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAG 8 1311 TUFTS UNIVERSITY 6045 JOVE RESEARCH 01/21/1997 - 08/31/1999 FY98: \$11,000 Total: \$55,000 Prin. Invest.: K P LENTL Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT CASE Category: 22 - COMPUTER SCIENCE | NAG 2 1197 UNIV OF MASSACHUSETTS @ WORCESTER 6053 EFFECTS OF GRAVITY ON CELL MOVEMENT & DEVELOPMENT 04/02/1998 - 09/30/1998 FY98: \$67,117 Total: \$67,117 Prin. Invest.: Y L VANG Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) |
| NAG 8 1480 TUFTS UNIVERSITY 6046 STUDY OF DEVELOPMENT OF POLYMER STRUCTURE IN MICROGRAVITY USING ELLIPSOMETRY 02/27/1998 - 01/31/2000 FY98: \$70,000 Total: \$70,000 Prin. Invest.: R CEBE Tech. Officer: MSFC/C L TALLEY CASE Category: 19 - PHYSICAL SCIENCE, OTHER | NAG 8 1358 UNIV OF MASSACHUSETTS @ WORCESTER 6054 R/S MICROGRAVITY AND THE BIOLOGY OF NEURAL STEM CELLS 06/19/1997 - 11/30/1998 FY98: \$160,991 Total: \$247,991 Prin. Invest.: W SC HWARTZ Tech. Officer: JSC/V SCHWARTZ CASE Category: 51 - ENVIRONMENTAL BIOLOGY |
| NAGW 2383 TUFTS UNIVERSITY 6047 OBSERVATIONS OF SOLAR ACTIVITY AT RADIO WAVELENGTHS IN SUPPORT OF NASA BALLOON AND SATELLITE MISSIONS 03/18/1991 - 08/31/1997 FY98: \$0 Total: \$471,788 Prin. Invest.: K LANG Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE CASE Category: 13 - PHYSICS | NAG 9 819 UNIV OF MASSACHUSETTS @ WORCESTER 6055 STEM CELL EXPANSION IN ROTATING BIOREACTORS 08/17/1995 - 08/31/1999 FY98: \$181,000 Total: \$690,000 Prin. Invest.: P J QLESENBERY Tech. Officer: JSC/N PELLIS CASE Category: 51 - MEDICAL |
| NAGW 5136 TUFTS UNIVERSITY 6048 RADIO STUDIES OF THE SOLAR CORONA IN SUPPORT OF NASA MISSIONS 07/25/1996 - 07/31/1998 FY98: \$0 Total: \$76,000 Prin. Invest.: K R LANG Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NAG 9 820 UNIV OF MASSACHUSETTS @ WORCESTER 6056 INFLUENCE OF MICROGRAVITY CONDITIONS ON GENE TRANSFER INTO EXPANDED POPULATIONS 08/17/1995 - 09/17/1998 FY98: \$220,000 Total: \$850,000 Prin. Invest.: F M STEWART Tech. Officer: JSC/N PELLIS CASE Category: 56 - MEDICAL |

NAG 1 1022 UNIVERSITY OF MASSACHUSETTS - AMHERST **6057**
GROUND-BASED MILLIMETER-WAVE MEASUREMENT OF OZONE IN THE
MIDDLE ATMOSPHERE
 06/19/1989 - 12/31/1998 FY98: \$231,659 Total: \$1,299,763
Prin. Invest.: A D PARRISH
Tech. Officer: LARC/L E DEEVER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1991 UNIVERSITY OF MASSACHUSETTS - AMHERST **6058**
MODEL-BASED SENSOR SELECTION FOR HELICOPTER GEARBO X MON-
ITORING
 11/18/1996 - 11/17/1998 FY98: \$0 Total: \$67,306
Prin. Invest.: K DANA
Tech. Officer: LERC/D G LEWICKI
CASE Category: 46 - MECHANICAL ENGR

NAG 5 3011 UNIVERSITY OF MASSACHUSETTS - AMHERST **6059**
DISCOVERY OF SUPERSOFT X-RAY SOURCES FROM ROSAT POINTED
OBSERVATIONS
 07/19/1995 - 07/31/1997 FY98: \$0 Total: \$84,100
Prin. Invest.: S A RAPPAPORT
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3013 UNIVERSITY OF MASSACHUSETTS - AMHERST **6060**
AN INVESTIGATION OF THE COLD INTERSTELLAR MEDIUM OF THE OUTER
GALAXY
 07/18/1995 - 07/31/1997 FY98: \$0 Total: \$80,200
Prin. Invest.: M H HEYER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3653 UNIVERSITY OF MASSACHUSETTS - AMHERST **6061**
BOUNDARY CONDITIONS FOR THE PALEOENVIRONMENT:CHEMI PRO-
CESSES IN INTERSTELLAR CLOUDS
 03/24/1997 - 10/14/1998 FY98: \$75,576 Total: \$148,639
Prin. Invest.: D M IRVINE
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3789 UNIVERSITY OF MASSACHUSETTS - AMHERST **6062**
COMPARISON OF SEAFLOOR AND VENUSIAN PANCAKE DOMES
 03/07/1997 - 10/31/1997 FY98: \$0 Total: \$35,000
Prin. Invest.: G E MCGILL
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3922 UNIVERSITY OF MASSACHUSETTS - AMHERST **6063**
ORIGIN OF QUASAR ABSORPTION LINES IN A COSMOLOGICAL
 03/24/1997 - 03/31/1999 FY98: \$40,000 Total: \$80,000
Prin. Invest.: N KATZ
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4064 UNIVERSITY OF MASSACHUSETTS - AMHERST **6064**
A THEORETICAL STUDY OF PROCESSES DRIVING THE FORMA
 03/18/1997 - 03/31/1999 FY98: \$50,417 Total: \$98,895
Prin. Invest.: N KATZ
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4272 UNIVERSITY OF MASSACHUSETTS - AMHERST **6065**
A CRYOGENIC FREQUENCY MULTIPLIER CHAIN FOR 1000 GH
 04/18/1997 - 03/31/1999 FY98: \$46,083 Total: \$119,081
Prin. Invest.: D R ERICKSON
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4373 UNIVERSITY OF MASSACHUSETTS - AMHERST **6066**
PLANETARY, TECTONICS, AREAL GEOLOGY, AND GEOLOGICAL
 04/25/1997 - 01/31/1999 FY98: \$40,000 Total: \$80,000
Prin. Invest.: D E MCGILL
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4652 UNIVERSITY OF MASSACHUSETTS - AMHERST **6067**
SHOCK AND THERMAL HISTORY OF IRON AND CHONDRITIC M
 06/11/1997 - 02/28/2001 FY98: \$83,333 Total: \$232,333
Prin. Invest.: D I GOLDSTEIN
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4743 UNIVERSITY OF MASSACHUSETTS - AMHERST **6068**
MILLIMETER-WAVE AND RADIO STUDIES OF SOLAR SYSTEM
 06/04/1997 - 05/31/1999 FY98: \$0 Total: \$55,000
Prin. Invest.: D SCHLOERB
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4999 UNIVERSITY OF MASSACHUSETTS - AMHERST **6069**
STRUCTURAL AND GEOMORPHIC EVOLUTION OF THE MARTIAN
 07/24/1997 - 07/14/1999 FY98: \$11,781 Total: \$52,173
Prin. Invest.: G MCGILL
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 5151 UNIVERSITY OF MASSACHUSETTS - AMHERST **6070**
RADARSAT UNDERFLIGHTS: COMPARISON OF C-BAND VV AND HH BACK-
SCATTER-WIND RETRIEVAL
 09/21/1997 - 04/30/1998 FY98: \$25,735 Total: \$25,735
Prin. Invest.: R E MCINTOSH, J R CARSWELL
Tech. Officer: GSFC/D C VANDEMARK, GSFC/E WALSH
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 6028 UNIVERSITY OF MASSACHUSETTS - AMHERST **6071**
PLANAR SUBMILLIMETER MIXER AND MULTIPLIER DEVELOPM
 09/11/1997 - 09/14/1998 FY98: \$0 Total: \$29,847
Prin. Invest.: N ERICKSON
Tech. Officer: GSFC/G CHIN
CASE Category: 11 - ASTRONOMY

NAG 5 6161 UNIVERSITY OF MASSACHUSETTS - AMHERST **6072**
UMASS PLANET EARTH EDUCATION PROGRAMS
 08/01/1997 - 07/31/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: M STERNHEIM
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

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| NAG 5 6612 UNIVERSITY OF MASSACHUSETTS - AMHERST 6073 MILLIMETER-WAVE AND RADIO STUDIES OF SOLAR SYSTEM OBJECTS 02/12/1998 - 12/31/1998 FY98: \$75,854 Total: \$75,854 Prin. Invest.: F SCHLOERB Tech. Officer: GSFC/T MORGAN CASE Category: 32 - GEOLOGICAL SCIENCE | NAGW 1935 UNIVERSITY OF MASSACHUSETTS - AMHERST 6081 STUDY PHASE FOR A NEW 2 MICRON SKY SURVEY 02/06/1990 - 06/30/1997 FY98: \$0 Total: \$1,786,348 Prin. Invest.: M S KRUTSKIE Tech. Officer: HC/G S LEVY CASE Category: 11 - ASTRONOMY |
| NAG 5 6701 UNIVERSITY OF MASSACHUSETTS - AMHERST 6074 ENVIRONMENTAL EVOLUTION. LIFE'S EFFECTS ON THE ARCHEAN AND PROTEROZOIC EARTH: AN INTEGRATED RESEARCH 12/04/1997 - 08/31/1998 FY98: \$85,000 Total: \$85,000 Prin. Invest.: L MARGULIS Tech. Officer: GSFC/M MEYER CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) | NAGW 1965 UNIVERSITY OF MASSACHUSETTS - AMHERST 6082 PLANETARY TECTONICS, AREAL GEOLOGY, AND GEOLOGICAL HISTORY 01/24/1990 - 09/30/1997 FY98: \$0 Total: \$279,528 Prin. Invest.: G E MCGILL Tech. Officer: HQ/T A MAXWELL CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 5 6848 UNIVERSITY OF MASSACHUSETTS - AMHERST 6075 DUST, GAS AND STAR FORMATION IN ANDROMEDA (M31) AND 7,500 01/12/1998 - 12/31/1998 FY98: \$58,672 Total: \$58,672 Prin. Invest.: J YOUNG, NONE Tech. Officer: GSFC/D WEST CASE Category: 11 - ASTRONOMY | NAGW 1989 UNIVERSITY OF MASSACHUSETTS - AMHERST 6083 MICROBIAL CONTRIBUTIONS TO THE PRECAMBRIAN EARTH 04/27/1990 - 09/30/1997 FY98: \$0 Total: \$599,409 Prin. Invest.: L MARGOLIS Tech. Officer: HQ/J D RUMMELT CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) |
| NAG 5 7575 UNIVERSITY OF MASSACHUSETTS - AMHERST 6076 COMPUTING OUR ORIGINS 07/28/1998 - 05/31/1999 FY98: \$25,462 Total: \$25,462 Prin. Invest.: N KATZ Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY | NAGW 2430 UNIVERSITY OF MASSACHUSETTS - AMHERST 6084 DEVELOPMENT OF A 1036 HETERODYNE RECEIVER FOR ASTRONOMICAL APPLICATIONS 07/31/1991 - 08/31/1998 FY98: \$0 Total: \$150,000 Prin. Invest.: N E FICKSON Tech. Officer: HQ/M BICAY CASE Category: 3 - PHYSICS |
| NAG 5 7651 UNIVERSITY OF MASSACHUSETTS - AMHERST 6077 LOW-NOISE HOT ELECTRON BOLOMETRIC HETERODYNE RECEIVERS FOR THE THZ REGION, USING NBN 09/17/1998 - 08/31/1999 FY98: \$60,199 Total: \$60,199 Prin. Invest.: K YNGVESSON Tech. Officer: GSFC/H THRONSON CASE Category: 11 - ASTRONOMY | NAGW 3685 UNIVERSITY OF MASSACHUSETTS - AMHERST 6085 RADAR ALTIMETRY STUDIES OVER THE GREENLAND ICE SHEET: EXPERIMENT AND ANALYSIS 07/16/1993 - 11/30/1996 FY98: -\$538 Total: \$283,616 Prin. Invest.: C T S WIFT Tech. Officer: HQ/L H THOMAS CASE Category: 11 - ATMOSPHERIC SCIENCE |
| NAG 8 1490 UNIVERSITY OF MASSACHUSETTS - AMHERST 6078 IMPROVING HURRICANE LANDFALL INTENSITY FORECASTS THRU MICRO-WAVE REMOTE SENSING OF SURFACE WIND 01/30/1998 - 02/01/1999 FY98: \$86,176 Total: \$86,176 Prin. Invest.: C T SWIFT Tech. Officer: MSFC/J ARNOLD, HQ/R K KAKAR CASE Category: 31 - ATMOSPHERIC SCIENCE | NAGW 4263 UNIVERSITY OF MASSACHUSETTS - AMHERST 6086 COMPARISON OF SEAFLOOR AND VENUSIAN PANCAKE DOMES 01/25/1995 - 10/31/1996 FY98: \$0 Total: \$69,998 Prin. Invest.: G MCGILL Tech. Officer: HQ/T BRINTON CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAGW 436 UNIVERSITY OF MASSACHUSETTS - AMHERST 6079 BOUNDARY CONDITIONS FOR THE PALEOENVIRONMENT: CHEMICAL AND PHYSICAL PROCESSES IN THE PRE-SOLAR NEBULA 02/15/1983 - 06/30/1997 FY98: \$0 Total: \$777,075 Prin. Invest.: W M IRVINE, F P SCHLOERB Tech. Officer: HQ/J D RUMMEL, HQ/M AVERNER CASE Category: 32 - GEOLOGICAL SCIENCE | NAGW 4514 UNIVERSITY OF MASSACHUSETTS - AMHERST 6087 SHOCK AND THERMAL HISTORY OF IRON AND CHONDRITIC METEORITES 07/12/1995 - 12/31/1998 FY98: \$0 Total: \$297,262 Prin. Invest.: J GOLDSTEIN Tech. Officer: HQ/C NAVA CASE Category: 41 - ASTRONAUTICAL ENGR |
| NAGW 1483 UNIVERSITY OF MASSACHUSETTS - AMHERST 6080 STUDIES IN RADIATIVE TRANSFER 11/02/1988 - 05/31/1997 FY98: \$10,000 Total: \$510,051 Prin. Invest.: F P SCHLOERB Tech. Officer: HQ/J H RAHE CASE Category: 11 - ASTRONOMY | NAGW 4891 UNIVERSITY OF MASSACHUSETTS - AMHERST 6088 LOW NOISE HOT ELECTRON HETERODYNE RECEIVERS FOR THE THZ REGION 12/18/1995 - 12/31/1996 FY98: \$0 Total: \$80,024 Prin. Invest.: K S YNGVESSON Tech. Officer: HQ/L J CAROFF, HQ/M D BICAY CASE Category: 11 - ASTRONOMY |

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| NCCW 67 UNIVERSITY OF MASSACHUSETTS - AMHERST 6089 A 2 MICRON ALL SKY SURVEY 02/07/1995 - 07/01/1998 FY98: \$0 Total: \$2,508,500 <i>Prin. Invest.:</i> M SKRUTSKIE <i>Tech. Officer:</i> HQ/L LAPIANA <i>CASE Category:</i> 11 - ASTRONOMY | NAG 5 6222 WELLESLEY COLLEGE 6097 HIGH-RESOLUTION LABORATORY MEASUREMENTS OF UV ABSO AND LINE WIDTHS FOR SO2 AND N2 08/25/1997 - 06/30/1999 FY98: \$16,233 Total: \$63,733 <i>Prin. Invest.:</i> D STARK <i>Tech. Officer:</i> GSFC/S HOWARD <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NGT 51277 UNIVERSITY OF MASSACHUSETTS - AMHERST 6090 GRADUATE STUDENT RESEARCHERS PROGRAM 06/14/1994 - 06/30/1997 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> R E MCINTOSH <i>Tech. Officer:</i> JPL/C HIX <i>CASE Category:</i> 45 - ELECTRICAL ENGR | NAGW 1368 WELLESLEY COLLEGE 6098 DYNAMICS AND STRUCTURE OF PLANETARY RINGS 07/11/1988 - 09/30/1997 FY98: \$0 Total: \$367,734 <i>Prin. Invest.:</i> R G FRENCH <i>Tech. Officer:</i> HQ/J UNDERWOOD, HQ/J M BOYCE <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE |
| NGT 51282 UNIVERSITY OF MASSACHUSETTS - AMHERST 6091 GRADUATE STUDENT RESEARCHERS PROGRAM 07/26/1994 - 08/31/1997 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> K A COREY <i>Tech. Officer:</i> HQ/G LESANE <i>CASE Category:</i> 55 - AGRICULTURE | NAGW 3607 WELLESLEY COLLEGE 6099 ANALYSIS OF VOYAGER OCCULTATION MEASUREMENTS OF THE ATMOSPHERES OF TITAN AND TRITON 05/21/1993 - 12/31/1996 FY98: \$0 Total: \$34,866 <i>Prin. Invest.:</i> G STARK, NONE <i>Tech. Officer:</i> HQ/J T BERGSTRALH <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER |
| NGT 9 32 UNIVERSITY OF MASSACHUSETTS - AMHERST 6092 TRAINING GRANT 06/04/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> R E VAN EMMERIK <i>Tech. Officer:</i> JSC/D G SICKOREZ <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER | NAGW 5200 WELLESLEY COLLEGE 6100 HIGH RESOLUTION LAB MEASUREMENTS OF UV ABSORPTION CROSS SECTIONS & LINE WIDTHS FOR SO2 & N2 09/26/1996 - 07/31/1998 FY98: \$0 Total: \$55,572 <i>Prin. Invest.:</i> G STARK <i>Tech. Officer:</i> HQ/J BERGSTRALH, HQ/H C BRINTON <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER |
| NAG 5 6500 UNIVERSITY OF MASSACHUSETTS-DARTMOUTH 6093 RESEARCH EQUIPMENT FOR LABORATORY FOR PROCESSING AND REMOTE IMAGING OF THE MARINE ENVIRONMENT (PRI 10/24/1997 - 12/31/1998 FY98: \$63,000 Total: \$63,000 <i>Prin. Invest.:</i> C CHEN <i>Tech. Officer:</i> GSFC/M WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 2884 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6101 EODIS CORE SYSTEM USABILITY TEST 02/08/1995 - 03/31/1999 FY98: \$126,333 Total: \$382,740 <i>Prin. Invest.:</i> D M GLOVER <i>Tech. Officer:</i> GSFC/K R MCDONALD <i>CASE Category:</i> 33 - OCEANOGRAPHY |
| NAG 5 6605 UNIVERSITY OF MASSACHUSETTS-DARTMOUTH 6094 INTERANNUAL PHYSICAL AND BIOLOGICAL VARIABILITY OF THE NORTHEAST U.S. COAST 12/11/1997 - 11/14/1998 FY98: \$61,614 Total: \$61,614 <i>Prin. Invest.:</i> J BISAGNI <i>Tech. Officer:</i> GSFC/J CAMPBELL <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 3752 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6102 SEARCHING FOR NATURAL MASS FRACTIONATION OF MOLYBD 11/18/1996 - 08/31/1998 FY98: \$0 Total: \$70,000 <i>Prin. Invest.:</i> G E RAVIZZA <i>Tech. Officer:</i> GSFC/D HOLLAND <i>CASE Category:</i> 12 - CHEMISTRY |
| NAG13 48 UNIVERSITY OF MASSACHUSETTS-DARTMOUTH 6095 ADVANCED FISHERIES MANAGEMENT INFORMATION SYSTEM 04/23/1997 - 05/31/1999 FY98: \$200,000 Total: \$450,000 <i>Prin. Invest.:</i> B ROTHSCHILD <i>Tech. Officer:</i> SSC/C HILL <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 4812 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6103 THE DEVELOPMENT OF A GENERAL CIRCULATION MODEL FOR OCEANIC FORECASTING AND CLIMATE STUDY 06/19/1997 - 09/14/1998 FY98: \$0 Total: \$95,000 <i>Prin. Invest.:</i> D HUANG <i>Tech. Officer:</i> GSFC/E J LINDSTROM <i>CASE Category:</i> 33 - OCEANOGRAPHY |
| NAG 5 4046 WELLESLEY COLLEGE 6096 STRUCTURE AND DYNAMICS OF PLANETARY RINGS 03/10/1997 - 09/30/2000 FY98: \$45,000 Total: \$87,000 <i>Prin. Invest.:</i> R G FRENCH <i>Tech. Officer:</i> GSFC/P G ROGERS <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE | NAG 5 4847 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6104 BIOGEOCHEMICAL FLUXES AT THE OCEAN/ATMOSPHERE INTERFACE 06/23/1997 - 11/30/1998 FY98: \$0 Total: \$322,973 <i>Prin. Invest.:</i> D GOYET <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 33 - OCEANOGRAPHY |

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| NAG 5 6455 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6105 MODELING MESOSCALE BIOGEOCHEMICAL PROCESSES IN A T OPEX/ POSEIDON DIAMOND SURROUNDING THE U.S. JGOFS 11/04/1997 – 09/30/1998 FY98: \$169,029 Total: \$169,029 <i>Prin. Invest.:</i> D J MCGILLICUDDY <i>Tech. Officer:</i> GSFC/G ASRAR CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NAGW 4709 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6113 UPWELLING-INDUCED PRIMARY PRODUCTIVITY IN COASTAL WATERS OF THE BLACK SEA 09/16/1995 – 09/30/1997 FY98: –\$990 Total: \$368,548 <i>Prin. Invest.:</i> J C GOLDMAN, K H BRINK, G C GAWARKIEWICZ <i>Tech. Officer:</i> HQ/M BALTUCK CASE Category: 13 – PHYSICS |
| NAG 5 6456 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6106 STUDYING THE ANNUAL AND INTER-ANNUAL VARIABILITY IN OCEAN COLOR USING SATELLITE DATA AND GLOBAL M 11/03/1997 – 09/30/1999 FY98: \$195,911 Total: \$195,911 <i>Prin. Invest.:</i> D M GLOVER <i>Tech. Officer:</i> GSFC/J A YODER CASE Category: 33 – OCEANOGRAPHY | NAGW 4765 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6114 SPATIAL AND TEMPORAL VARIABILITY OF DMS IN OLIGOTROPIC SURFACE WATERS 10/10/1995 – 01/31/1997 FY98: \$0 Total: \$121,184 <i>Prin. Invest.:</i> J H HACEY <i>Tech. Officer:</i> HQ/M BALTUCK CASE Category: 33 – OCEANOGRAPHY |
| NAG 5 6660 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6107 ISOTOPIC BIOGEOCHEMISTRY 11/25/1997 – 06/30/1999 FY98: \$200,000 Total: \$200,000 <i>Prin. Invest.:</i> D M HAYES <i>Tech. Officer:</i> GSFC/M MEYER CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR) | NAGW 4806 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6115 GYRE-SCALE CIRCULATION AND COUPLING IN THE NORTH ATLANTIC AND NORTH PACIFIC OCEANS 10/18/1995 – 06/30/1997 FY98: \$0 Total: \$110,000 <i>Prin. Invest.:</i> M CARVSO <i>Tech. Officer:</i> HQ/M BALTUCK CASE Category: 33 – OCEANOGRAPHY |
| NAG 5 7348 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6108 STUDIES OF HEAT, SALT, AND RADIATIVE FLUXES IN THE ARCTIC USING SATELLITE AND BUOY OBSERVAT 04/28/1998 – 04/30/1999 FY98: \$60,000 Total: \$60,000 <i>Prin. Invest.:</i> J YANG <i>Tech. Officer:</i> GSFC/J COMISO CASE Category: 33 – OCEANOGRAPHY | NAGW 5217 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6116 BIOLOGICAL INTERPRETATION OF OCEAN COLOR 11/04/1996 – 06/30/1998 FY98: \$0 Total: \$195,658 <i>Prin. Invest.:</i> H M SOSIK <i>Tech. Officer:</i> HQ/G ASRAR, HQ/R C HARRISS CASE Category: 33 – OCEANOGRAPHY |
| NAG 5 7445 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6109 OPTICAL CLASSIFICATION OF WATER TYPES FROM SEAWIFS DATA: A HYBRID APPROACH USING BOTH SEMI-AN 06/04/1998 – 08/31/2001 FY98: \$90,268 Total: \$90,268 <i>Prin. Invest.:</i> H M SOSIK <i>Tech. Officer:</i> GSFC/J W CAMPBELL CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NAG 1 1606 WORCESTER POLYTECHNIC INSTITUTE 6117 ANALYSIS OF RUNWAY SURFACE TOPOGRAPHIES FOR CONCURRENT ENGINEERING DESIGN 02/22/1994 – 01/21/1998 FY98: –\$2 Total: \$193,518 <i>Prin. Invest.:</i> C A BROWN <i>Tech. Officer:</i> LARC/R H DAUGHERTY CASE Category: 43 – MECHANICAL ENGR |
| NAG 5 7538 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6110 BIOLOGICAL INTERPRETATION OF OCEAN COLOR: OBSERVATIONS AND MODELS FOR WATERS OF THE MID-ATLANTIC 06/16/1998 – 02/28/2000 FY98: \$180,000 Total: \$180,000 <i>Prin. Invest.:</i> H SOSIK <i>Tech. Officer:</i> GSFC/A JANETOS CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NAG 3 1873 WORCESTER POLYTECHNIC INSTITUTE 6118 MODELING OF PULSED PLASMA THRUSTER PLUMES 05/22/1996 – 11/30/1998 FY98: \$49,927 Total: \$103,139 <i>Prin. Invest.:</i> D A GATSONIS <i>Tech. Officer:</i> LERC/E J PENCIL CASE Category: 43 – ASTRONAUTICAL ENGR |
| NAGW 2431 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6111 BIOGEOCHEMICAL FLUXES AT THE OCEAN/ATMOSPHERE INTERFACE 04/25/1991 – 12/31/1997 FY98: \$0 Total: \$4,488,150 <i>Prin. Invest.:</i> P G BREWER <i>Tech. Officer:</i> HQ/B MITCHELL CASE Category: 33 – OCEANOGRAPHY | NAG 5 7421 WORCESTER POLYTECHNIC INSTITUTE 6119 STUDENT PROJECTS AT THE GODDARD SPACE FLIGHT CENTER 05/28/1998 – 06/30/1999 FY98: \$15,000 Total: \$15,000 <i>Prin. Invest.:</i> F J LOFT <i>Tech. Officer:</i> GSFC/M BROWN CASE Category: 45 – ENGINEERING, OTHER |
| NAGW 3648 WOODS HOLE OCEANOGRAPHIC INSTITUTION 6112 A COUPLED BIOLOGICAL-PHYSICAL MODEL FOR STUDYING ANNUAL AND INTER-ANNUAL VARIABILITY IN SEAWIFS 07/14/1993 – 12/31/1997 FY98: \$0 Total: \$369,765 <i>Prin. Invest.:</i> D M GLOVER <i>Tech. Officer:</i> HQ/R MURPHY CASE Category: 33 – OCEANOGRAPHY | NAG 8 1255 WORCESTER POLYTECHNIC INSTITUTE 6120 MODELING OF MACROSCOPIC/MICROSCOPIC TRANSPORT AND GROWTH PHENOMENA 05/30/1996 – 05/31/1998 FY98: \$45,585 Total: \$183,924 <i>Prin. Invest.:</i> A SACCO <i>Tech. Officer:</i> MSFC/C R TALLEY CASE Category: 19 – PHYSICAL SCIENCE, OTHER |

NAG 9 1014 WORCESTER POLYTECHNIC INSTITUTE **6121**
GENESIS DISCOVERY MISSION PHASE B
 05/12/1998 – 05/11/1999 FY98: \$60,000 Total: \$60,000
Prin. Invest.: K M RUTLEDGE
Tech. Officer: JSC/E K STANSBERRY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NGT 51107 WORCESTER POLYTECHNIC INSTITUTE **6122**
GRADUATE STUDENT RESEARCHERS PROGRAM
 05/28/1993 – 04/30/1997 FY98: -\$149 Total: \$65,851
Prin. Invest.: C A BROWN
Tech. Officer: LARC/E PRIOR
CASE Category: 46 – MECHANICAL ENGR

MICHIGAN

NCC 3 609 BAY MILLS COMMUNITY COLLEGE **6123**
RENEWABLE ENERGY EDUCATION PROGRAM RENEWABLE ENERGY EDUCATION PROGRAM
 04/17/1998 – 02/18/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: T DAVIS
Tech. Officer: LERC/A F HEPP
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 3208 DELTA COLLEGE **6124**
DELTA COLLEGE/DELTA COLLEGE SCIENCE LEARNING CENTER
 09/17/1992 – 05/31/1997 FY98: \$0 Total: \$8,750,000
Prin. Invest.: H ARMAN
Tech. Officer: HQ/M PHELPS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6409 GRAND VALLEY STATE UNIVERSITY **6125**
PROVIDES FUNDING FOR TECH SUPPORT FOR "GPS MONITORING OF STRAIN ACCUMULATION IN THE NEW MAD
 10/24/1997 – 10/31/1999 FY98: \$2,999 Total: \$2,999
Prin. Invest.: J WEBER
Tech. Officer: GSFC/B BILLS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 1 1837 KETTERING UNIVERSITY **6126**
STRUCTURAL OPTIMIZATION WITH COST MINIMIZATION USING NON-LINEAR GOAL PROGRAMMING
 05/29/1996 – 05/31/1999 FY98: \$35,125 Total: \$100,251
Prin. Invest.: M EL-SAYED
Tech. Officer: LARC/J M HOUSNER/W J 23ROUD
CASE Category: 46 – MECHANICAL ENGR

NAG 8 1337 KETTERING UNIVERSITY **6127**
HIGH ORDER SHOCK CAPTURING ALL SPEED COMPACT SCHEME FOR REACTING FLOWS
 02/24/1997 – 11/30/1998 FY98: \$20,000 Total: \$60,000
Prin. Invest.: R BERG
Tech. Officer: MSFC/K GROSS
CASE Category: 46 – MECHANICAL ENGR

NAG 1 1591 MICHIGAN STATE UNIVERSITY **6128**
A DISCRETE-LAYER FINITE ELEMENT MODEL FOR STATIC AND DYNAMIC PROGRESSIVE FAILURE ANALYSIS OF LARGE
 01/31/1994 – 07/27/1997 FY98: -\$5 Total: \$132,403
Prin. Invest.: R C AVERILL
Tech. Officer: LARC/A TESSLER
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1459 MICHIGAN STATE UNIVERSITY **6129**
TIME RESOLVED MEASUREMENTS OF THE STREAMWISE VORTICITY IN THE MIXING LAYER FROM A TABBED NOZZLE
 02/22/1993 – 08/31/1997 FY98: -\$1,361 Total: \$143,686
Prin. Invest.: J F FOSS
Tech. Officer: LERC/K Q ZAMAN
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1626 MICHIGAN STATE UNIVERSITY **6130**
STUDIES OF WIND-AIDED FLAME SPREAD OVER THEN CELLULOSE FUELS IN MICROGRAVITY
 06/22/1994 – 12/20/1998 FY98: \$44,000 Total: \$303,000
Prin. Invest.: I S WICHMAN
Tech. Officer: LERC/H D ROSS
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1749 MICHIGAN STATE UNIVERSITY **6131**
IMAGE TILING FOR HIGH RESOLUTION SOLID SURFACE PROFILING
 05/26/1995 – 12/31/1998 FY98: \$40,098 Total: \$100,098
Prin. Invest.: A K JAIN
Tech. Officer: LERC/C R MERCER
CASE Category: 22 – COMPUTER SCIENCE

NAG 3 2203 MICHIGAN STATE UNIVERSITY **6132**
CONTROL OF SHOCK-WAVE/BOUNDARY-LAYER INTERACTIONS WITH BLEED
 09/25/1998 – 11/30/1999 FY98: \$21,364 Total: \$21,364
Prin. Invest.: T I SHIH
Tech. Officer: LERC/B P WILLIS
CASE Category: 41 – AERONAUTICAL ENGINEERING

NAG 5 3218 MICHIGAN STATE UNIVERSITY **6133**
CCD SYSTEM TECHNOLOGY FOR EXTREMELY LOW BACKGROUND OBSERVATIONS
 04/26/1996 – 04/30/1999 FY98: \$0 Total: \$328,000
Prin. Invest.: E D LOH
Tech. Officer: GSFC/E S CHUNG
CASE Category: 13 – PHYSICS

NAG 5 3484 MICHIGAN STATE UNIVERSITY **6134**
ANALYSIS OF MR CYGNI & BETA LYRAE
 10/31/1996 – 10/31/1997 FY98: \$0 Total: \$26,597
Prin. Invest.: A P LINNELL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4031 MICHIGAN STATE UNIVERSITY **6135**
SOLAR CONVECTION AND ATMOSPHERIC DYNAMICS
 02/24/1997 – 02/28/1999 FY98: \$103,000 Total: \$207,000
Prin. Invest.: R F STEIN
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 – ASTRONOMY

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| NAG 5 4810 MICHIGAN STATE UNIVERSITY 6136 ACQUISITION AND ANALYSIS OF LARGE QUANTITIES OF LAND MEASURING TROPICAL LAND COVER CHANGE (NRA-MTPE-03) 07/30/1997 - 10/31/1998 FY98: \$202,598 Total: \$247,545 <i>Prin. Invest.:</i> D SKOLE <i>Tech. Officer:</i> GSFC/D WILLIAMS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7650 MICHIGAN STATE UNIVERSITY 6144 "THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO PREDICT MOSQUITO-BORNE ENCEPHALITIS TRANSMIS" 09/01/1998 - 08/31/1999 FY98: \$30,000 Total: \$30,000 <i>Prin. Invest.:</i> N V WALKER <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> GSFC/B W MESSON <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER |
| NAG 5 6042 MICHIGAN STATE UNIVERSITY 6137 HIERARCHICAL INVESTIGATION OF SOCIOECONOMIC DRIVER LAND- COVER CHANGES IN THE UPPER MIDWEST 07/23/1997 - 07/31/1999 FY98: \$153,750 Total: \$342,746 <i>Prin. Invest.:</i> D BROWN <i>Tech. Officer:</i> GSFC/A JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7726 MICHIGAN STATE UNIVERSITY 6145 THEORETICAL INVESTIGATION OF TIME-DISTANCE HELIOSEISMOLOGY- NEW GRANT 09/24/1998 - 09/30/1999 FY98: \$44,000 Total: \$44,000 <i>Prin. Invest.:</i> R F STEIN <i>Tech. Officer:</i> GSFC/J GURMAN <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER |
| NAG 5 6480 MICHIGAN STATE UNIVERSITY 6138 MICHIGAN STATE UNIVERSITY CENTER OF EXCELLENCE IN APPLICATIONS OF REMOTESENSING TO REGIONAL AND GLOBAL 11/18/1997 - 03/31/1999 FY98: \$392,185 Total: \$392,185 <i>Prin. Invest.:</i> D L SKOLE <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAGW 1695 MICHIGAN STATE UNIVERSITY 6146 SOLAR CONVECTOR DYNAMICS & OSCILLATIONS 02/27/1989 - 06/30/1997 FY98: \$0 Total: \$370,186 <i>Prin. Invest.:</i> R F STEIN <i>Tech. Officer:</i> HQ J D BOHLIN, HQ/S KANE <i>CASE Category:</i> 13 - PHYSICS |
| NAG 5 6522 MICHIGAN STATE UNIVERSITY 6139 PREPARING LANDSCAPE ECOLOGISTS FOR THE 21ST CENTURY 12/01/1997 - 12/31/1999 FY98: \$10,000 Total: \$10,000 <i>Prin. Invest.:</i> J LIU <i>Tech. Officer:</i> GSFC/A C JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NCC 5 291 MICHIGAN STATE UNIVERSITY 6147 MEASUREMENT AND MODELING OF THE INTER-ANNUAL DYNAMICS OF DEFORESTATION AND REGROWTH IN THE BRAZIL 06/16/1998 - 06/30/1999 FY98: \$230,679 Total: \$230,679 <i>Prin. Invest.:</i> D SKOLE <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> GSFC/D DEERING <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 6538 MICHIGAN STATE UNIVERSITY 6140 CASE STUDIES AND DIAGNOSTIC MODELS OF THE INTER-ANNUAL DYNAMICS OF DEFORESTATION IN SOUTHEAST ASIA 04/21/1998 - 09/30/2000 FY98: \$403,750 Total: \$403,750 <i>Prin. Invest.:</i> D SKOLE <i>Tech. Officer:</i> GSFC/A JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NCC 5 303 MICHIGAN STATE UNIVERSITY 6148 CREATIVE & INNOVATIVE WORKING PROTOTYPE EARTH SCIENCE INFORMATION PARTNERSHIPS IN SUPPORT 04/09/1998 - 02/23/2001 FY98: \$1,475,000 Total: \$1,475,000 <i>Prin. Invest.:</i> D SKOLE <i>Tech. Officer:</i> GSFC/M MAIDEN <i>CASE Category:</i> 19 - MULTI INTERDISCIPL, OTHER |
| NAG 5 6638 MICHIGAN STATE UNIVERSITY 6141 LANDSAT PATHFINDER - HUMID TROPICAL FOREST PROJECT 11/18/1997 - 10/31/1999 FY98: \$317,647 Total: \$317,647 <i>Prin. Invest.:</i> D SKOLE <i>Tech. Officer:</i> GSFC/A JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NCC 7 2 MICHIGAN STATE UNIVERSITY 6149 BUILDING COMMUNICATIONS NETWORK 09/02/1994 - 12/31/1998 FY98: \$0 Total: \$2,196,000 <i>Prin. Invest.:</i> M MOCH, N ALTIERO <i>Tech. Officer:</i> NMCI/A HUSAIN <i>CASE Category:</i> 12 - COMPUTER SCIENCE |
| NAG 5 6780 MICHIGAN STATE UNIVERSITY 6142 LAND USE AND LAND COVER CHANGE DATA REQUIREMENTS WORKSHOP, NOV. 11-14, 1997: BARCELONA, SPAIN 01/15/1998 - 06/30/1998 FY98: \$16,890 Total: \$16,890 <i>Prin. Invest.:</i> D SKOLE <i>Tech. Officer:</i> GSFC/A JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NGT 70376 MICHIGAN STATE UNIVERSITY 6150 GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF) 08/23/1994 - 06/30/1997 FY98: -\$5,555 Total: \$60,445 <i>Prin. Invest.:</i> B H CHENG <i>Tech. Officer:</i> HQ/T K RUSSELL <i>CASE Category:</i> 12 - COMPUTER SCIENCE |
| NAG 5 6949 MICHIGAN STATE UNIVERSITY 6143 THE USE OF SAR FOR MONITORING DEFORESTATION AND SECONDARY GROWTH IN THE TOPICS 02/18/1998 - 12/31/1998 FY98: \$47,753 Total: \$47,753 <i>Prin. Invest.:</i> D L SKOLE <i>Tech. Officer:</i> GSFC/S GOGINENI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NGT 5 30166 MICHIGAN STATE UNIVERSITY 6151 MAPPING THE SPATIAL DISTRIBUTION OF BAMBOO IN A GIANT PANDA RESERVE: A STUDY OF THE RELATIONSHIP 09/01/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> J LIU <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER |

NGT 5 50150 MICHIGAN STATE UNIVERSITY **6152**
AN INTEGRATED ASSESSMENT OF THE CUMULATIVE IMPACTS ARCTIC DEVELOPMENT
 09/11/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: P WEBBER
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT10 52612 MICHIGAN STATE UNIVERSITY **6153**
GRADUATE STUDENT RESEARCH GRANT
 09/01/1997 - 07/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: C CRIDDLE
Tech. Officer: KSC/G BUCKINGHAM
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT13 52715 MICHIGAN STATE UNIVERSITY **6154**
NASA GRADUATE STUDENT RESEARCHER PROGRAM FOR STACEY A.C. NELSON
 10/01/1997 - 08/15/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: P SORRANO
Tech. Officer: SSC/A JOYCE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 2 1095 MICHIGAN TECHNOLOGICAL UNIVERSITY **6155**
RESEARCH IN HELICOPTER ACOUSTICS: ANALYSIS OF BLADE VORTEX INTERACTION NOISE
 12/06/1996 - 09/30/1997 FY98: \$0 Total: \$24,914
Prin. Invest.: J C ROGERS
Tech. Officer: ARC/C W ACREE, JR., ARC/G K YAMAUCHI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2088 MICHIGAN TECHNOLOGICAL UNIVERSITY **6156**
NUMERICAL STUDIES OF THE LDI AND THE LPP/LDI GAS TURBINE COMBUSTOR CONCEPTS
 12/23/1997 - 11/17/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: S L YANG
Tech. Officer: LERC/R R TACINA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3260 MICHIGAN TECHNOLOGICAL UNIVERSITY **6157**
COMPARISON OF TOMS AND OCTS DATA FOR VOLCANIC CLOUD ANALYSIS
 07/01/1996 - 06/30/1997 FY98: \$0 Total: \$175,000
Prin. Invest.: G BLUTH
Tech. Officer: GSFC/A KRUEGAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3279 MICHIGAN TECHNOLOGICAL UNIVERSITY **6158**
NO COST TIME EXTENSION
 07/01/1996 - 06/30/1998 FY98: \$0 Total: \$85,000
Prin. Invest.: R J NEMIROFF
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3689 MICHIGAN TECHNOLOGICAL UNIVERSITY **6159**
COOL STARS ATMOSPHERIC MODELS. COMPUTATIONS OF HIGH
 01/14/1997 - 01/14/1999 FY98: \$47,000 Total: \$92,178
Prin. Invest.: A BORYSOW
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4144 MICHIGAN TECHNOLOGICAL UNIVERSITY **6160**
LAKE SUPERIOR ICE FIELD MEASUREMENTS FOR C-BAND SIGNATURES & ICE COVER ANALYSIS WITH RADARSAT SAR
 04/15/1997 - 03/31/1998 FY98: \$0 Total: \$42,957
Prin. Invest.: D PILANT
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4534 MICHIGAN TECHNOLOGICAL UNIVERSITY **6161**
MODELING OF COLLISION INDUCED ABSORPTION SPECTRA OF PLANETARY ATMOSPHERE OF VENUS
 05/06/1997 - 11/30/1998 FY98: \$0 Total: \$45,900
Prin. Invest.: D BORYSOW
Tech. Officer: GSFC/J BERSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4756 MICHIGAN TECHNOLOGICAL UNIVERSITY **6162**
CONTINUING THE SEARCH FOR GRAVITATIONAL LENSING IN
 06/17/1997 - 05/31/1999 FY98: \$8,000 Total: \$33,000
Prin. Invest.: R J NEMIROFF
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6310 MICHIGAN TECHNOLOGICAL UNIVERSITY **6163**
LINEAR ADAPTIVE MIRROR TESTBED TO SUPPORT DIRECT DETECTION OF EXTRA-SOLAR PLANETS
 10/06/1997 - 06/14/1999 FY98: \$155,488 Total: \$155,488
Prin. Invest.: D FTACLAS
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6650 MICHIGAN TECHNOLOGICAL UNIVERSITY **6164**
CENTER FOR ENVIRONMENTAL REMOTE SENSING EDUCATION FOR ENGINEERS AND SCIENTISTS AT MICHIGAN TECH
 12/10/1997 - 11/30/1998 FY98: \$400,944 Total: \$400,944
Prin. Invest.: G J BLUTH
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7051 MICHIGAN TECHNOLOGICAL UNIVERSITY **6165**
LAKE SUPERIOR ICE FIELD MEASUREMENTS FOR C-BAND SAR BACKSCATTER SIGNATURES AND ICE COVER ANALYSIS
 03/12/1998 - 02/28/1999 FY98: \$74,686 Total: \$74,686
Prin. Invest.: D PILANT
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7272 MICHIGAN TECHNOLOGICAL UNIVERSITY **6166**
VOLCANIC PLUME ANALYSIS USING TOMS AND AVHRR DATA
 04/30/1998 - 05/14/1999 FY98: \$35,000 Total: \$35,000
Prin. Invest.: W ROSE
Tech. Officer: GSFC/A J KRUEGER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7576 MICHIGAN TECHNOLOGICAL UNIVERSITY **6167**
FUNDING FOR 'APPLICATION OF TOMS DATA TO VOLCANIC HAZARD MITIGATION' (SENH98-0061)
 08/04/1998 - 01/31/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: G J BLUTH
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 8 1478 MICHIGAN TECHNOLOGICAL UNIVERSITY 6168
R/S GRAVITY INDUCED SETTLING IN INTERCONNECTED LIQUID SOLID SYSTEMS
 02/18/1998 - 01/31/2002 FY98: \$56,667 Total: \$56,667
Prin. Invest.: T H COURTNEY
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 918 MICHIGAN TECHNOLOGICAL UNIVERSITY 6169
DEVELOPMENT OF UV PHOTOCATALYTIC OXIDATION TECHNOLOGIES
 11/15/1996 - 11/14/1997 FY98: \$0 Total: \$22,977
Prin. Invest.: V H SELZER, D W HAND
Tech. Officer: JSC/J GRAF
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4566 MICHIGAN TECHNOLOGICAL UNIVERSITY 6170
MODELING OF COLLISION INDUCED ABSORPTION SPECTRA OF CO₂-CO₂ PAIRS FOR PLANETARY ATMOSPHERE OF VEUUS
 06/02/1995 - 10/31/1997 FY98: \$0 Total: \$79,947
Prin. Invest.: A BORYSOW
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4989 MICHIGAN TECHNOLOGICAL UNIVERSITY 6171
LAKE SUPERIOR ICE FIELD MEASUREMENTS FOR C-BAND DART BACK-SCATTER SIGNATURES AND ICE COVER ANALYSIS
 03/01/1996 - 09/30/1997 FY98: \$0 Total: \$70,956
Prin. Invest.: D PILANT
Prin. Invest.: NONE
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5186 MICHIGAN TECHNOLOGICAL UNIVERSITY 6172
CONTRIBUTION OF VOLCANIC ACTIVITY TO THE ATMOSPHERIC
 09/03/1996 - 03/31/1998 FY98: \$0 Total: \$37,000
Prin. Invest.: G BLUTH
Tech. Officer: HQ/M BALTUCK, HQ/A C JANETOS
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 30275 MICHIGAN TECHNOLOGICAL UNIVERSITY 6173
GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/02/1994 - 08/31/1997 FY98: -\$389 Total: \$65,611
Prin. Invest.: R E HONRATH
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 76 MICHIGAN TECHNOLOGICAL UNIVERSITY 6174
COLLEEN RILEY "TWO-DIMENSIONAL CHARACTERIZATION OF VOLCANIC ASH-APPLICATIONS TO REMOTE SENSING ALGO
 07/22/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: W I ROSE
Tech. Officer: GSFC/M S BURRELL
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 5 30028 MICHIGAN TECHNOLOGICAL UNIVERSITY 6175
THE DYNAMICS OF HUMAN-DRIVEN LAND COVER CHANGE IN
 10/23/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: P DEBANKER
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30154 MICHIGAN TECHNOLOGICAL UNIVERSITY 6176
TEMPORAL ANALYSIS OF VOLCANIC AEROSOL AND ASH TRANSPORT
 08/28/1998 - 01/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: G BLUTH, BARKER
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 1 869 UNIVERSITY OF MICHIGAN - ANN ARBOR 6177
AN ADAPTIVE MULTI-GRID CODE FOR FLUID DYNAMICS BASED ON GEN-UNIQUELY MULTI-DIMENSIONAL CONCEPTS
 03/25/1988 - 11/30/1997 FY98: \$1 Total: \$615,407
Prin. Invest.: B VAN LEER, K POWELL
Tech. Officer: LARC/J L THOMAS, LARC/J C SOUTH, JR.
CASE Category: 21 - MATHEMATICS

NAG 1 1331 UNIVERSITY OF MICHIGAN - ANN ARBOR 6178
HIGH RESOLUTION DOPPLER LIDAR MEASUREMENTS - FDP
 09/24/1991 - 02/28/1997 FY98: -\$1 Total: \$300,302
Prin. Invest.: V J ABREU, P B MAYES, A K SMITH
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 13 - PHYSICS

NAG 1 1478 UNIVERSITY OF MICHIGAN - ANN ARBOR 6179
ANALYSIS OF CONFORMAL ANTENNAS IN COMPOSITE SURFACES NLPN 92-1107
 02/05/1993 - 12/31/1997 FY98: \$0 Total: \$275,001
Prin. Invest.: J L VOLAKIS
Tech. Officer: LARC/F B BECK
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1544 UNIVERSITY OF MICHIGAN - ANN ARBOR 6180
A FOUR CHANNEL NO/O₃ CHEMILUMINESCENCE INSTRUMENT FOR SIMULTANEOUS AIRBORNE MEASUREMENTS OF NITRIC
 09/28/1993 - 09/27/1997 FY98: \$0 Total: \$835,628
Prin. Invest.: M A CARROLL
Tech. Officer: LARC/G L GREGORY, LARC/J M HOELL JR.
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1720 UNIVERSITY OF MICHIGAN - ANN ARBOR 6181
COMPARISON OF DOUBLE ETALON VS. MULTIPLEXING FABRY-PEROT INTERFEROMETERS FOR DETERMINING TOTAL
 05/08/1995 - 09/10/1998 FY98: \$114,899 Total: \$342,776
Prin. Invest.: W B COOK, P B HAYS
Tech. Officer: LAIC/A M LARAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1755 UNIVERSITY OF MICHIGAN - ANN ARBOR 6182
THE MODELING AND EVALUATION OF THRUST LOSSES AND PERFORMANCE OF HIGH-SPEED AEROSPACE ENGINES
 09/20/1995 - 02/28/1999 FY98: \$179,430 Total: \$678,423
Prin. Invest.: D A CARROLL, D ALBER
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2042 UNIVERSITY OF MICHIGAN - ANN ARBOR 6183
TROPOSPHERIC TRACE GAS BUDGETS: INTERACTIONS WITH AEROSOLS
 04/23/1998 - 04/22/1999 FY98: \$105,000 Total: \$105,000
Prin. Invest.: J E FENNER
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1129 UNIVERSITY OF MICHIGAN – ANN ARBOR **6184**
DEVELOPMENT OF NUMERICAL EXTENDED HYDRODYNAMICS FOR TRANSMISSION-REGIME NON-EQUILIBRIUM FLOWS.....
 05/20/1997 – 08/31/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: C T GROTH, P L ROE
Tech. Officer: ARC/M MEYYAPAN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 3 1245 UNIVERSITY OF MICHIGAN – ANN ARBOR **6185**
THE INVESTIGATION OF LAMINAR JET DIFFUSION FLAMES
 03/01/1991 – 04/24/1997 FY98: \$0 Total: \$937,569
Prin. Invest.: G M FAETH
Tech. Officer: LERC/D STOCKER
CASE Category: 49 – ENGINEERING, OTHER

NAG 3 1310 UNIVERSITY OF MICHIGAN – ANN ARBOR **6186**
A PRELIMINARY STUDY TO FORCED CONVECTION BOILING IN MICROGRAVITY
 12/05/1991 – 01/31/1998 FY98: -\$229 Total: \$220,906
Prin. Invest.: H MERTE
Tech. Officer: LERC/J A PLATT, LERC/R W VERNON
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1572 UNIVERSITY OF MICHIGAN – ANN ARBOR **6187**
USED FOR MODERN COMPUTATIONAL TOOLS TO MODEL THE THERMAL CHARACTERISTICS OF A 30-CM
 02/16/1994 – 12/28/1997 FY98: \$0 Total: \$105,528
Prin. Invest.: A D GALLIMORE
Tech. Officer: LERC/J S SOVEY, LERC/T W HAAG
CASE Category: 49 – ENGINEERING, OTHER

NAG 3 1639 UNIVERSITY OF MICHIGAN – ANN ARBOR **6188**
FLAME-VORTEX INTERACTIONS IMAGED IN MICROGRAVITY
 06/30/1994 – 06/29/1998 FY98: \$0 Total: \$554,700
Prin. Invest.: J F DRISCOLL
Tech. Officer: LERC/J E BROOKER
CASE Category: 49 – ENGINEERING, OTHER

NAG 3 1684 UNIVERSITY OF MICHIGAN – ANN ARBOR **6189**
STUDY OF POOL BOILING IN MICROGRAVITY – REWETTING FOLLOWING DRYOUT
 11/17/1994 – 12/31/1997 FY98: \$0 Total: \$301,075
Prin. Invest.: H MERTE, NONE
Tech. Officer: LERC/F P CHIARAMONTE
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1808 UNIVERSITY OF MICHIGAN – ANN ARBOR **6190**
STUDY OF BROAD-BAND RADIO SIGNAL PROPAGATION THROUGH CLOSED-DRIFT HALL THRUSTER PLUME PLASMA
 02/08/1996 – 06/07/1997 FY98: \$0 Total: \$58,241
Prin. Invest.: A D GALLIMORE
Tech. Officer: LERC/J M SANKOVIC
CASE Category: 42 – ASTRONAUTICAL ENGR

NAG 3 1861 UNIVERSITY OF MICHIGAN – ANN ARBOR **6191**
ON THE BOUNDARY CONDITIONS AT AN OSCILLATING CONTACT LINE: A PHYSICAL/NUMERICAL EXPERIMENTAL PROGRAM
 05/21/1996 – 05/20/2000 FY98: \$51,000 Total: \$215,000
Prin. Invest.: M PERLIN
Tech. Officer: LERC/M WEISLOGEL
CASE Category: 13 – PHYSICS

NAG 3 1878 UNIVERSITY OF MICHIGAN – ANN ARBOR **6192**
SOOT FORMATION IN FREELY-PROPAGATING LAMINAR PREMIXED FLAMES
 05/20/1996 – 06/30/2000 FY98: \$53,015 Total: \$173,759
Prin. Invest.: G M FAETH
Tech. Officer: LERC/H D ROSS
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1880 UNIVERSITY OF MICHIGAN – ANN ARBOR **6193**
EXPERIMENTAL INVESTIGATION OF THE EFFECTS ON MISTUING ON THE FORCED RESPONSE OF BLADE ASSEMBLY
 05/22/1996 – 04/08/1999 FY98: \$27,456 Total: \$112,121
Prin. Invest.: C PIERRE
Tech. Officer: LERC/O MEHMED, LERC/G L STEFKO
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1900 UNIVERSITY OF MICHIGAN – ANN ARBOR **6194**
A STUDY OF NUCLEATE BOILING WITH FORCED CONVECTION IN MICROGRAVITY
 07/22/1996 – 07/21/1999 FY98: \$0 Total: \$199,920
Prin. Invest.: P MERTE, NONE
Tech. Officer: LERC/F CHIARAMONTE
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1903 UNIVERSITY OF MICHIGAN – ANN ARBOR **6195**
SIGES/MONOLITHICALLY INTEGRATED AMPLIFIER CIRCUITS
 07/08/1996 – 11/02/1997 FY98: \$0 Total: \$130,000
Prin. Invest.: L KATEHI, P BHATTACHARYA
Tech. Officer: LERC/G E PONCHAK, LERC/S A ALTEROVITZ
CASE Category: 45 – ELECTRICAL ENGR

NAG 3 1952 UNIVERSITY OF MICHIGAN – ANN ARBOR **6196**
NUMERICAL MODELING OF LIQUID-VAPOR PHASE CHANGE
 09/06/1996 – 08/14/2000 FY98: \$15,000 Total: \$116,591
Prin. Invest.: V S ARPACI
Tech. Officer: LERC/A T CHAI
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 3 1972 UNIVERSITY OF MICHIGAN – ANN ARBOR **6197**
RELIABILITY STUDY OF HERMETIC PACKAGES FOR HIGH FREQUENCY APPLICATIONS
 11/18/1996 – 05/17/1998 FY98: \$0 Total: \$35,000
Prin. Invest.: L B KATEHI
Tech. Officer: LERC/G E PONCHAK
CASE Category: 45 – ELECTRICAL ENGR

NAG 3 2048 UNIVERSITY OF MICHIGAN – ANN ARBOR **6198**
LAMINAR SOOT PROCESSES EXPERIMENT (LSP)
 05/06/1997 – 04/30/2000 FY98: \$176,568 Total: \$315,568
Prin. Invest.: G M FAETH
Tech. Officer: LERC/D URBAN
CASE Category: 46 – MECHANICAL ENGR

NAG 3 2082 UNIVERSITY OF MICHIGAN – ANN ARBOR **6199**
STRATEGY 2000: RECRUITMENT, RETENTION, RECOGNITION; A BALANCED APPROACH TO DIVERSITY AND EXCELLENCE
 09/30/1997 – 12/18/1998 FY98: \$64,880 Total: \$64,880
Prin. Invest.: D E SCOTT, J W JONES
Tech. Officer: LERC/A GONZALEZ, LERC/S A MERRITT
CASE Category: 49 – ENGINEERING, OTHER

NAG 3 2085 UNIVERSITY OF MICHIGAN - ANN ARBOR **6200**
S/VE K- AND KA-BAND CIRCUITS S/VE K- AND KA- BAND CIRCUITS
 11/03/1997 - 10/31/1998 FY98: \$180,000 Total: \$180,000
Prin. Invest.: L B KATEHI
Tech. Officer: LERC/G E PONCHAK, LERC/S A ALTEROVITZ
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2091 UNIVERSITY OF MICHIGAN - ANN ARBOR **6201**
DEVELOPMENT OF A METHODOLOGY FOR CONDUCTING HALL THRUSTERS
EMI TESTS IN METAL VACUUM
 03/12/1998 - 11/06/1998 FY98: \$59,634 Total: \$59,634
Prin. Invest.: A GALLIMORE
Tech. Officer: LERC/M A MANTENIEKS
CASE Category: 13 - PHYSICS

NAG 3 2134 UNIVERSITY OF MICHIGAN - ANN ARBOR **6202**
MICROSCOPIC VISUALIZATION OF FLUID FLOW IN EVAPORATION DROP-
LETS AND ELECTRO-OSMOTIC FLOWS
 03/03/1998 - 01/05/2002 FY98: \$140,000 Total: \$140,000
Prin. Invest.: R G LARSON
Tech. Officer: LERC/D W GRIFFIN
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2148 UNIVERSITY OF MICHIGAN - ANN ARBOR **6203**
USE OF MODERN COMPUTATIONAL AND LASER DIAGNOSTIC TOOLS TO
STUDY THE THERMAL CHARACTERISTICS AND CATH
 04/01/1998 - 02/18/1999 FY98: \$64,873 Total: \$64,873
Prin. Invest.: D GALLIMORE
Tech. Officer: LERC/J S SOVEY, LERC/V K RAWLIN
CASE Category: 13 - PHYSICS

NAG 3 2162 UNIVERSITY OF MICHIGAN - ANN ARBOR **6204**
COMPUTATIONS OF BOILING IN MICROGRAVITY COMPUTATIONS OF BOIL-
ING IN MICROGRAVITY
 04/27/1998 - 02/09/2002 FY98: \$80,000 Total: \$80,000
Prin. Invest.: G TRYGGVASON, D JACQMIN
Tech. Officer: LERC/D F CHAO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2196 UNIVERSITY OF MICHIGAN - ANN ARBOR **6205**
FLUID MECHANICS OF CAPILLARY-ELASTIC INSTABILITIES IN THE
MICROGRAVITY ENVIRONMENT
 09/03/1998 - 03/31/2001 FY98: \$60,000 Total: \$60,000
Prin. Invest.: J B GROTEBERG
Tech. Officer: LERC/D F CHAO
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 653 UNIVERSITY OF MICHIGAN - ANN ARBOR **6206**
SOUNDING ROCKET SPECTROMETER TO MEASURE DAPPLER
 01/01/1989 - 05/31/1998 FY98: \$0 Total: \$958,264
Prin. Invest.: J T CLARKE
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 1955 UNIVERSITY OF MICHIGAN - ANN ARBOR **6207**
THE GEOMETRY AND FILLING FACTOR OF THE HOT INTERSTELLAR
MEDIUM
 03/26/1992 - 09/30/1997 FY98: \$0 Total: \$166,379
Prin. Invest.: J N BREGMAN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2397 UNIVERSITY OF MICHIGAN - ANN ARBOR **6208**
ANALYSIS OF THE OBSERVATIONS OF HYDROGEN IN COMETS
 10/15/1993 - 04/30/1998 FY98: \$0 Total: \$98,856
Prin. Invest.: M F COMBI
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2522 UNIVERSITY OF MICHIGAN - ANN ARBOR **6209**
THE X-RAY SIGNATURE OF MERGERS IN ELLIPTICALS
 02/10/1994 - 06/30/1997 FY98: \$0 Total: \$28,395
Prin. Invest.: D C RICHSTONE
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2790 UNIVERSITY OF MICHIGAN - ANN ARBOR **6210**
GAS DYNAMIC SIMULATIONS OF GROUPS AND CLUSTERS AND GALAXIES
 11/14/1994 - 08/11/1998 FY98: \$13,140 Total: \$298,740
Prin. Invest.: A E EVRARD
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2869 UNIVERSITY OF MICHIGAN - ANN ARBOR **6211**
STAR FORMATION STUDIES: DYNAMICS AND INFRARED SIGNATURES
 01/12/1995 - 01/14/1999 FY98: \$0 Total: \$220,000
Prin. Invest.: F C ADAMS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2876 UNIVERSITY OF MICHIGAN - ANN ARBOR **6212**
WINDOWS TO THE UNIVERSE-AN EARTH AND SPACE SCIENCE INTER-
NET-BASED ACTIVE LEARNING SYSTEM . . .
 01/19/1995 - 01/11/1999 FY98: \$0 Total: \$1,425,000
Prin. Invest.: R JOHNSON
Tech. Officer: GSFC/F HASLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2918 UNIVERSITY OF MICHIGAN - ANN ARBOR **6213**
ANALOG ELECTRONICS AND ELECTRICAL GROUND SUPPORT EQUIP-
MENT FOR THE PLANET-B NEUTRAL MASS SPECTRO.
 03/21/1995 - 10/11/1997 FY98: \$0 Total: \$388,288
Prin. Invest.: G R CARIGNAN
Tech. Officer: GSFC/S H WAY
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 3044 UNIVERSITY OF MICHIGAN - ANN ARBOR **6214**
ARCHIVAL STUDY OF ENERGETIC PROCESSES IN THE UPPER
ATMOSPHERE OF THE OUTER PLANE
 08/03/1995 - 08/14/1997 FY98: \$0 Total: \$160,300
Prin. Invest.: G E BALLESTER
Tech. Officer: GSFC/W WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3145 UNIVERSITY OF MICHIGAN - ANN ARBOR **6215**
A MULTIWAVELENGTH SEARCH FOR CORRELATED TIME VARIATIONS IN
THE BRIGHTEST EGRET BLAZARS
 11/14/1995 - 06/30/1997 FY98: \$0 Total: \$14,458
Prin. Invest.: M A LER, R C HARTMAN
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3168 UNIVERSITY OF MICHIGAN – ANN ARBOR **6216**
BUDGET OF NITROGEN COMPOUNDS IN THE GLOBAL ATMOSPHERE: OBSERVATION-BASED CLIMATOLOGIES . . .
 02/14/1996 – 02/28/1999 FY98: \$98,900 Total: \$144,800
Prin. Invest.: M A CARROLL, G BRASSEUR
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3180 UNIVERSITY OF MICHIGAN – ANN ARBOR **6217**
HIGH RESOLUTION DOPPLER IMAGER
 03/29/1996 – 03/31/1999 FY98: \$258,031 Total: \$1,948,111
Prin. Invest.: P B HAYS
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3247 UNIVERSITY OF MICHIGAN – ANN ARBOR **6218**
THE HOT INTERSTELLAR MEDIUM IN SPIRAL, ELLIPTICALS, AND CLUSTERS OF GALAXIES
 05/30/1996 – 04/30/1998 FY98: \$0 Total: \$246,000
Prin. Invest.: J N BREGMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3284 UNIVERSITY OF MICHIGAN – ANN ARBOR **6219**
CORRELATED OBSERVATIONS OF MARKARIAN 421 AT X-RAY AND TEV ENERGIES
 07/03/1996 – 01/14/1998 FY98: \$0 Total: \$10,800
Prin. Invest.: C AKERLOF
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3352 UNIVERSITY OF MICHIGAN – ANN ARBOR **6220**
DUST IN THE X-RAY ATMOSPHERES OF ELLIPTICAL GALAXIES
 08/09/1996 – 08/14/1999 FY98: \$0 Total: \$20,150
Prin. Invest.: J N BREGMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3401 UNIVERSITY OF MICHIGAN – ANN ARBOR **6221**
GALAXY CLUSTER EVOLUTION AND DYNAMICS AT THE PRESENT
 10/01/1996 – 09/30/1998 FY98: \$63,800 Total: \$125,300
Prin. Invest.: A E EVRARD
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3679 UNIVERSITY OF MICHIGAN – ANN ARBOR **6222**
A TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZAR
 01/02/1997 – 01/14/1998 FY98: \$0 Total: \$14,001
Prin. Invest.: M F ALLER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3771 UNIVERSITY OF MICHIGAN – ANN ARBOR **6223**
GLOBAL STUDY OF THE SULFUR CYCLE INCLUDING THE INF FUEL SULFUR ON CLIMATE AND CLIMATE CHANGE
 03/14/1997 – 01/31/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: J E PENNER
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3849 UNIVERSITY OF MICHIGAN – ANN ARBOR **6224**
DEVELOPMENT OF SAR ALGORITHM FOR MAPPING SOIL MOISTURE BIOMASS
 02/03/1997 – 09/30/1998 FY98: \$80,901 Total: \$180,901
Prin. Invest.: F T ULABY
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3874 UNIVERSITY OF MICHIGAN – ANN ARBOR **6225**
INTESTINAL ADAPTATION IN MICROGRAVITY
 02/10/1997 – 03/31/1998 FY98: \$0 Total: \$99,386
Prin. Invest.: G L AMIDON
Tech. Officer: GSFC/M E FREY
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 4007 UNIVERSITY OF MICHIGAN – ANN ARBOR **6226**
DYNAMICAL VARIATIONS IN THE MESOSPHERE AND LOWER T AND INTER-ANNUAL VARIABILITY
 03/06/1997 – 04/30/1999 FY98: \$36,039 Total: \$104,684
Prin. Invest.: D D BURRAGE
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 – PHYSICS

NAG 5 4101 UNIVERSITY OF MICHIGAN – ANN ARBOR **6227**
BACKGROUND NOX SOURCES IN THE UPPER TROPOSPHERE: LIGHTNING, CONVECTION, AND STRATOSPHERE/TROPOSPHERE
 03/12/1997 – 10/14/1998 FY98: \$0 Total: \$25,400
Prin. Invest.: J E PENNER
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4169 UNIVERSITY OF MICHIGAN – ANN ARBOR **6228**
COMPOSITION AND EVOLUTION OF THE ATMOSPHERE OF VENUS
 03/15/1997 – 12/31/1997 FY98: \$0 Total: \$42,927
Prin. Invest.: D M DONAHUE
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4244 UNIVERSITY OF MICHIGAN – ANN ARBOR **6229**
MONITORING OF TWO BLAZARS WITH FREQUENCY-SIMULTANEOUS MULTIWAVELENGTH MONITORING OF THE PROMINENT BLAZAR
 04/03/1997 – 04/14/1999 FY98: \$0 Total: \$14,154
Prin. Invest.: M ALLER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4264 UNIVERSITY OF MICHIGAN – ANN ARBOR **6230**
THEORETICAL STUDIES AND SATELLITE DATA ANALYSIS OF LOWER THERMOSPHERE
 04/07/1997 – 04/14/1999 FY98: \$46,452 Total: \$128,077
Prin. Invest.: D L KILLEEN
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 – PHYSICS

NAG 5 4271 UNIVERSITY OF MICHIGAN – ANN ARBOR **6231**
STUDIES OF THE THERMOSPHERIC RESPONSE TO GEOMAGNETIC MINIMUM CONDITIONS
 04/03/1997 – 04/30/1999 FY98: \$36,519 Total: \$106,031
Prin. Invest.: D BURNS
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 – PHYSICS

NAG 5 4315 UNIVERSITY OF MICHIGAN – ANN ARBOR **6232**
MULTISCALE MODELING OF COMETARY ATMOSPHERES
 04/12/1997 – 05/31/1998 FY98: \$0 Total: \$67,382
Prin. Invest.: P I GOMBOSI
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4379 UNIVERSITY OF MICHIGAN – ANN ARBOR **6233**
MARS 96 PARTICIPATING SCIENTIST: STABILITY OF THE
 04/24/1997 – 05/31/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: P K ATREYA
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4381 UNIVERSITY OF MICHIGAN – ANN ARBOR **6234**
STUDIES OF TENOUS PLANETARY ATMOSPHERES
 04/29/1997 – 07/31/1998 FY98: \$20,000 Total: \$100,000
Prin. Invest.: D R COMBI
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4431 UNIVERSITY OF MICHIGAN – ANN ARBOR **6235**
REGIONAL SCALE LAND–COVER CLASSIFICATION USING EXI IMAGING RADAR
 04/17/1997 – 09/30/1997 FY98: \$0 Total: \$71,567
Prin. Invest.: D ULABY
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4483 UNIVERSITY OF MICHIGAN – ANN ARBOR **6236**
CORRELATED OBSERVATIONS OF MARKARIAN 421 AT X-RAY FREQUENCIES
 05/07/1997 – 04/30/1998 FY98: \$0 Total: \$25,105
Prin. Invest.: C W AKERLOF
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4556 UNIVERSITY OF MICHIGAN – ANN ARBOR **6237**
A PROPOSAL FOR THE CONTINUATED PARTICIPATION OF L. 96 ELISMA INVESTIGATION
 05/29/1997 – 04/30/1998 FY98: \$0 Total: \$15,000
Prin. Invest.: D BRACE
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4589 UNIVERSITY OF MICHIGAN – ANN ARBOR **6238**
A PROGRAM FOR RESEARCH IN PLANETARY ATMOSPHERES: P COUPLED CLOUD PHYSICS
 05/23/1997 – 06/30/2000 FY98: \$27,664 Total: \$107,664
Prin. Invest.: P K ATREYA
Tech. Officer: GSFC/R BEEBE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4674 UNIVERSITY OF MICHIGAN – ANN ARBOR **6239**
CO-INVESTIGATOR PROGRAM: MARS 94 MARIPROBE
 06/10/1997 – 01/31/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: D F NAGY
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4714 UNIVERSITY OF MICHIGAN – ANN ARBOR **6240**
DISTRIBUTION OF GASES IN THE INNER COMAE OF COMETS
 06/23/1997 – 10/31/1998 FY98: \$95,400 Total: \$186,287
Prin. Invest.: D F COMBI
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4770 UNIVERSITY OF MICHIGAN – ANN ARBOR **6241**
HOW LIFE AFFECTS THE GEOCHEMICAL CYCLE OF CARBON
 06/09/1997 – 12/31/1997 FY98: \$0 Total: \$100,000
Prin. Invest.: D C WALKER
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 4771 UNIVERSITY OF MICHIGAN – ANN ARBOR **6242**
STUDIES OF INNER MAGNETOSPHERIC PROCESSES AND THE UNDERLYING ATMOSPHERE AND IONOSPHERE
 06/09/1997 – 04/30/1999 FY98: \$92,008 Total: \$167,008
Prin. Invest.: D U KOZYRA
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 – PHYSICS

NAG 5 4855 UNIVERSITY OF MICHIGAN – ANN ARBOR **6243**
APPLICATION OF MC-ICPMS TO THE MEASUREMENT OF ISOT MO, RU, SN, TE AND W
 06/23/1997 – 03/31/1999 FY98: \$0 Total: \$44,957
Prin. Invest.: D N HALLIDAY
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4912 UNIVERSITY OF MICHIGAN – ANN ARBOR **6244**
MULTIDIMENSIONAL MHD MODEL STUDIES OF THE IONOSPHERE
 07/02/1997 – 03/31/1999 FY98: \$79,000 Total: \$169,000
Prin. Invest.: D F NAGY
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4916 UNIVERSITY OF MICHIGAN – ANN ARBOR **6245**
FULLY IMPLANTABLE INTEGRATED SILICON BIOTELEMETRY M
 07/07/1997 – 04/10/1998 FY98: \$0 Total: \$247,516
Prin. Invest.: K N WAFI
Tech. Officer: GSFC/G FOGLEMAN
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 4939 UNIVERSITY OF MICHIGAN – ANN ARBOR **6246**
DIGITAL TOPOGRAPHY FROM SAR INTERFEROMETRY: DETERMINATION OF VEGETATION HEIGHT
 06/23/1997 – 09/15/1998 FY98: \$30,000 Total: \$110,777
Prin. Invest.: K S RABANDI
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 5030 UNIVERSITY OF MICHIGAN – ANN ARBOR **6247**
SOLAR AND MAGNETOSPHERIC INPUTS TO THE MLTI REGION
 03/03/1995 – 02/18/1999 FY98: \$10,000 Total: \$205,974
Prin. Invest.: J KOZYRA
Tech. Officer: GSFC/R PLESS
CASE Category: 13 – PHYSICS

NASA'S UNIVERSITY PROGRAM

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| <p>NAG 5 5049 UNIVERSITY OF MICHIGAN - ANN ARBOR 6248 TIDI - A TIMED DOPPLER INTERFEROMETER NEW AWARD 12/04/1995 - 01/31/1999 FY98: \$0 Total: \$2,249,997 <i>Prin. Invest.:</i> T L KILLEN <i>Tech. Officer:</i> GSFC/W B JOHNSON <i>CASE Category:</i> 13 - PHYSICS</p> | <p>NAG 5 6203 UNIVERSITY OF MICHIGAN - ANN ARBOR 6256 AN INTEGRATED MODELING STUDY FOR COORDINATED OBSERVATIONS OF H₂O, OH, AND H₂O + EMISSIONS IN THE CO 10/17/1997 - 08/31/1999 FY98: \$70,954 Total: \$70,954 <i>Prin. Invest.:</i> D R COMBI <i>Tech. Officer:</i> GSFC/J BERGSTRAHL <i>CASE Category:</i> 11 - ASTRONOMY</p> |
| <p>NAG 5 5059 UNIVERSITY OF MICHIGAN - ANN ARBOR 6249 HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) FIRST YEAR OF FUNDING 05/01/1996 - 01/31/1999 FY98: \$116,958 Total: \$630,000 <i>Prin. Invest.:</i> G TARLE <i>Tech. Officer:</i> GSFC/H C NEEDLEMAN, GSFC/B A MERRITT <i>CASE Category:</i> 13 - PHYSICS</p> | <p>NAG 5 6425 UNIVERSITY OF MICHIGAN - ANN ARBOR 6257 ESTIMATING WATER STORED IN SOIL & VEGETATION USING LSP MODEL SOIL WETNESS & SATELLITE RADIO BRIGHTNESS 10/06/1997 - 09/30/1999 FY98: \$325,200 Total: \$325,200 <i>Prin. Invest.:</i> A ENGLAND <i>Tech. Officer:</i> GSFC/M WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 5 5101 UNIVERSITY OF MICHIGAN - ANN ARBOR 6250 A DEEP REALTIME SEARCH FOR THE OPTICAL COUNTER- PARTS OF BATSE & HETE EVENTS 02/11/1997 - 12/31/1998 FY98: \$195,305 Total: \$353,876 <i>Prin. Invest.:</i> C AKERLOF <i>Tech. Officer:</i> GSFC/H C NEEDLEMAN, GSFC/B A MERRITT <i>CASE Category:</i> 13 - PHYSICS</p> | <p>NAG 5 6471 UNIVERSITY OF MICHIGAN - ANN ARBOR 6258 ENERGETIC PARTICLE PROPAGATION IN THE NEW MODEL FOR THE HELIOSPHERIC MAGNETIC FIELD 11/17/1997 - 10/31/1998 FY98: \$58,630 Total: \$58,630 <i>Prin. Invest.:</i> T ZURBUCHEN <i>Tech. Officer:</i> GSFC/J LING <i>CASE Category:</i> 11 - ASTRONOMY</p> |
| <p>NAG 5 5121 UNIVERSITY OF MICHIGAN - ANN ARBOR 6251 HALE-BOPP FUNDING FOR THE FIRST YEAR OF THE GRANT 02/06/1997 - 10/31/1998 FY98: -\$430,000 Total: \$270,000 <i>Prin. Invest.:</i> J CLARK <i>Tech. Officer:</i> GSFC/B J FLOWERS <i>CASE Category:</i> 13 - PHYSICS</p> | <p>NAG 5 6709 UNIVERSITY OF MICHIGAN - ANN ARBOR 6259 CONTINUED SCIENTIFIC STUDIES OF THE MIDDLE ATMOSPHERE BY THE HIGHRESOLUTION DOPPLER IMAGER (12/12/1997 - 12/14/1998 FY98: \$279,070 Total: \$279,070 <i>Prin. Invest.:</i> D HAYS <i>Tech. Officer:</i> GSFC/C JACKMAN <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE</p> |
| <p>NAG 5 5173 UNIVERSITY OF MICHIGAN - ANN ARBOR 6252 STUDY OF AN IMAGING CALORIMETER FOR ACCESS FUNDING FOR FIRST YEAR OF GRANT 03/05/1998 - 12/31/1998 FY98: \$104,000 Total: \$104,000 <i>Prin. Invest.:</i> G TARLE <i>Tech. Officer:</i> GSFC/B A MERRITT <i>CASE Category:</i> 13 - PHYSICS</p> | <p>NAG 5 6827 UNIVERSITY OF MICHIGAN - ANN ARBOR 6260 MODELING OF COMETARY ATMOSPHERES 01/15/1998 - 12/31/1998 FY98: \$76,870 Total: \$76,870 <i>Prin. Invest.:</i> T GOMBOSI <i>Tech. Officer:</i> GSFC/R BEEBE <i>CASE Category:</i> 11 - ASTRONOMY</p> |
| <p>NAG 5 6083 UNIVERSITY OF MICHIGAN - ANN ARBOR 6253 GLOBAL OBSERVATION OF PLANETARY-SCALE WAVES IN THE THERMOSPHERE FROM HRDI AND WINDII 08/26/1997 - 08/14/1999 FY98: \$0 Total: \$78,158 <i>Prin. Invest.:</i> D S LIEBERMAN <i>Tech. Officer:</i> GSFC/M M MELLOTT <i>CASE Category:</i> 13 - PHYSICS</p> | <p>NAG 5 6883 UNIVERSITY OF MICHIGAN - ANN ARBOR 6261 COMPARATIVE STUDY OF JUPITER'S AURORA: HST UV IMAGES AND SPECTRA AND GALILEO DATA 01/30/1998 - 12/31/1998 FY98: \$50,000 Total: \$50,000 <i>Prin. Invest.:</i> J T CLARKE <i>Tech. Officer:</i> GSFC/R BEEBE <i>CASE Category:</i> 11 - ASTRONOMY</p> |
| <p>NAG 5 6122 UNIVERSITY OF MICHIGAN - ANN ARBOR 6254 SOHO GUEST INVESTIGATOR STUDY OF HYDROGEN LYMAN-AL WITH SWAN 08/11/1997 - 08/14/1999 FY98: \$47,777 Total: \$94,236 <i>Prin. Invest.:</i> D R COMBI <i>Tech. Officer:</i> GSFC/W J WAGNER <i>CASE Category:</i> 13 - PHYSICS</p> | <p>NAG 5 6960 UNIVERSITY OF MICHIGAN - ANN ARBOR 6262 APPLICATION FOR SUPPORT 1998 SYMPOSIUM ON RADIATION MEASUREMENTS AND APPLICATIONS 02/09/1998 - 04/30/1999 FY98: \$10,000 Total: \$10,000 <i>Prin. Invest.:</i> G KNOLL <i>Tech. Officer:</i> GSFC/J TROMBKA <i>CASE Category:</i> 11 - ASTRONOMY</p> |
| <p>NAG 5 6187 UNIVERSITY OF MICHIGAN - ANN ARBOR 6255 STUDIES FOR THE LOSS OF ATOMIC AND MOLECULAR SPECIES 07/30/1997 - 06/30/1999 FY98: \$31,114 Total: \$60,546 <i>Prin. Invest.:</i> D R COMBI <i>Tech. Officer:</i> GSFC/S HOWARD <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE</p> | |

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| NAG 5 7032 UNIVERSITY OF MICHIGAN - ANN ARBOR 6263 MODELS OF RELATIVISTIC EXTRAGALACTIC JETS AND THE INTERPRETATION OF VSOPDATA- ATP 02/17/1998 - 02/14/1999 FY98: \$40,700 Total: \$40,700 <i>Prin. Invest.:</i> P A HUGHES <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY | NAG 5 7681 UNIVERSITY OF MICHIGAN - ANN ARBOR 6271 DEFINING A CLIMATOLOGY AND THE EFFECTS OF ABSORBING AEROSOLS: MODELS AND MEASUREMENTS 09/04/1998 - 08/31/1999 FY98: \$100,000 Total: \$100,000 <i>Prin. Invest.:</i> J FENNER <i>Tech. Officer:</i> GSFC/M I MISHCHENKO <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NAG 5 7108 UNIVERSITY OF MICHIGAN - ANN ARBOR 6264 NUMERICAL SIMULATIONS OF GROUPS AND CLUSTERS OF GALAXIES - ATP 03/13/1998 - 03/31/1999 FY98: \$25,000 Total: \$25,000 <i>Prin. Invest.:</i> A E EVRARD <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY | NAG 8 1250 UNIVERSITY OF MICHIGAN - ANN ARBOR 6272 STUDY OF CONFINEMENT AND PROPULSION CHARACTERISTICS OF GASDYNAMIC MIRROR FUSION ROCKET 12/06/1996 - 11/30/1998 FY98: \$65,000 Total: \$192,276 <i>Prin. Invest.:</i> T K AMMASH, W GETTY <i>Tech. Officer:</i> GSFC/W J EMRICH <i>CASE Category:</i> 13 - PHYSICS |
| NAG 5 7322 UNIVERSITY OF MICHIGAN - ANN ARBOR 6265 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS 04/24/1998 - 04/30/1999 FY98: \$10,041 Total: \$10,041 <i>Prin. Invest.:</i> M F ALLER <i>Tech. Officer:</i> GSFC/J P NORRIS <i>CASE Category:</i> 11 - ASTRONOMY | NAG 9 652 UNIVERSITY OF MICHIGAN - ANN ARBOR 6273 SHEAR SENSITIVITIES OF HUMAN BONE MARROW CULTURES 10/28/1992 - 10/11/1997 FY98: -\$1,382 Total: \$418,618 <i>Prin. Invest.:</i> H Y WANG <i>Tech. Officer:</i> GSFC/S R GONDA <i>CASE Category:</i> 12 - CHEMISTRY |
| NAG 5 7474 UNIVERSITY OF MICHIGAN - ANN ARBOR 6266 HIGH RESOLUTION DOPPLER IMAGER - OPERATIONS AND ALGORITHM-MAINTENANCE 06/23/1998 - 06/30/1999 FY98: \$114,167 Total: \$114,167 <i>Prin. Invest.:</i> P B HAYS <i>Tech. Officer:</i> GSFC/C H JACKMAN <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | NAGW 176 UNIVERSITY OF MICHIGAN - ANN ARBOR 6274 "INTERACTION OF BIOTA AND ATMOSPHERE: THE GEOLOGICAL RECORDS" 04/01/1981 - 12/31/1998 FY98: \$0 Total: \$1,634,469 <i>Prin. Invest.:</i> J C WALKER, NONE <i>Tech. Officer:</i> HQ/J D RUMMEL, HQ/M AVERNER <i>CASE Category:</i> 12 - CHEMISTRY |
| NAG 5 7553 UNIVERSITY OF MICHIGAN - ANN ARBOR 6267 APPLICATION OF MC-ICPMS TO THE MEASUREMENT OF ISOTOPE ANOMALIES IN ZR, MO, RU, SN, TE AND W 06/23/1998 - 06/30/2000 FY98: \$35,000 Total: \$35,000 <i>Prin. Invest.:</i> A N HALLIDAY <i>Tech. Officer:</i> HQ/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY | NAGW 1334 UNIVERSITY OF MICHIGAN - ANN ARBOR 6275 CENTER FOR NEAR-MILLIMETER WAVE COMM. AND SENSING TECH. 07/13/1988 - 09/01/1998 FY98: \$0 Total: \$11,260,125 <i>Prin. Invest.:</i> F T ULABY <i>Tech. Officer:</i> HQ/S C HARTMAN <i>CASE Category:</i> 49 - ENGINEERING, OTHER |
| NAG 5 7557 UNIVERSITY OF MICHIGAN - ANN ARBOR 6268 GGG/POLAR TIDE CO-INVESTIGATOR PROGRAM MONITORING LEMNATAL FUNDS 06/25/1998 - 06/30/1999 FY98: \$40,000 Total: \$40,000 <i>Prin. Invest.:</i> A NAGEY <i>Tech. Officer:</i> GSFC/R HOFFMAN <i>CASE Category:</i> 99 - MULTIDISCIPLINARY, OTHER | NAGW 1366 UNIVERSITY OF MICHIGAN - ANN ARBOR 6276 MODELING OF COMETARY ATMOSPHERE 07/13/1988 - 05/31/1998 FY98: \$0 Total: \$598,832 <i>Prin. Invest.:</i> T I GOMBOSI <i>Tech. Officer:</i> HQ/J T BERGSTRAHL, HQ/W L QUIADE <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 7565 UNIVERSITY OF MICHIGAN - ANN ARBOR 6269 XTE PROPOSAL - CONTINUED RXTE OBSERVATIONS OF THREE BLAZARS(30264) 07/09/1998 - 04/30/1999 FY98: \$1,250 Total: \$1,250 <i>Prin. Invest.:</i> M ALLER <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY | NAGW 1642 UNIVERSITY OF MICHIGAN - ANN ARBOR 6277 SUPERCONDUCTING MAGNET INSTRUMENT FOR LIGHT ISOTOPES 01/26/1989 - 06/30/1997 FY98: \$0 Total: \$1,295,000 <i>Prin. Invest.:</i> G TAFLE <i>Tech. Officer:</i> HQ/M M MELLOTT, HQ/W V JONES <i>CASE Category:</i> 11 - PHYSICS |
| NAG 5 7569 UNIVERSITY OF MICHIGAN - ANN ARBOR 6270 PROVIDING THE GLOBAL MODELING INITIATIVE WITH MODELING AND ANALYSIS OF AEROSOLS EFFECTS 07/09/1998 - 07/31/1999 FY98: \$50,000 Total: \$50,000 <i>Prin. Invest.:</i> J E PENNER <i>Tech. Officer:</i> GSFC/R W STEWART <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | NAGW 1771 UNIVERSITY OF MICHIGAN - ANN ARBOR 6278 A PROGRAM FOR RESEARCH IN PLANETARY ATMOSPHERES 05/26/1989 - 09/30/1997 FY98: \$0 Total: \$675,127 <i>Prin. Invest.:</i> S ATRIYA <i>Tech. Officer:</i> HQ/J T BERGSTRAHL <i>CASE Category:</i> 11 - ASTRONOMY |

NAGW 1907 UNIVERSITY OF MICHIGAN - ANN ARBOR **6279**
THE DISTRIBUTION OF GAS IN THE INNER CORNAE OF COMETS
 12/27/1989 - 10/31/1997 FY98: \$0 Total: \$524,109
Prin. Invest.: M R COMBI
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAGW 2124 UNIVERSITY OF MICHIGAN - ANN ARBOR **6280**
A PRECISE MEASUREMENT OF THE TEMPERATURE OF THE CO SMIC BACKGROUND RADIATION
 05/23/1990 - 05/31/1998 FY98: \$0 Total: \$89,987
Prin. Invest.: D J HEYGI
Tech. Officer: HQ/G LEVY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 2135 UNIVERSITY OF MICHIGAN - ANN ARBOR **6281**
THE HOT INTERSTELLAR MEDIUM IN SPIRAL AND ELLIPTIC AL GALAXIES
 10/23/1990 - 06/30/1997 FY98: \$0 Total: \$860,505
Prin. Invest.: J N BREGMAN, NONE
Tech. Officer: HQ/G S KUTTER, HQ/G R RIEGLER
CASE Category: 11 - ASTRONOMY

NAGW 2151 UNIVERSITY OF MICHIGAN - ANN ARBOR **6282**
INVESTIGATION OF POLARIMETRIC RADAR RESPONSE TO SO IL MOIS- TURE AND SURFACE ROUGHNESS
 07/02/1990 - 10/31/1996 FY98: -\$23,568 Total: \$624,432
Prin. Invest.: F ULABY
Tech. Officer: HQ/G ASRAR, HQ/T J PIEPER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 2501 UNIVERSITY OF MICHIGAN - ANN ARBOR **6283**
NAGW-2501/UNIV MICHIGAN/PARTICIPATION AS A CO-INVE STIGATOR ON THE MARS 94 ELISMA INVESTIGATION
 06/13/1991 - 06/30/1997 FY98: \$0 Total: \$204,669
Prin. Invest.: L H BRACE
Tech. Officer: HQ/W L QUAIDE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 2533 UNIVERSITY OF MICHIGAN - ANN ARBOR **6284**
MARS 94 INVESTIGATIONS
 07/30/1991 - 01/31/1999 FY98: \$0 Total: \$255,428
Prin. Invest.: A NAGY
Tech. Officer: HQ/W L QUAIDE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 2561 UNIVERSITY OF MICHIGAN - ANN ARBOR **6285**
MARS '94 PARTICIPATING SCIENTIST: INVESTIGATION O F STABILITY OF THE MARTIAN ATMOSPHERE
 07/31/1991 - 06/30/1997 FY98: \$0 Total: \$182,773
Prin. Invest.: S K ATREYA
Tech. Officer: HQ/W L QUAIDE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3417 UNIVERSITY OF MICHIGAN - ANN ARBOR **6286**
STUDIES OF THE TENOUS PLANETARY ATMOSPHERES
 03/09/1993 - 07/31/1997 FY98: \$0 Total: \$329,931
Prin. Invest.: M COMBI
Tech. Officer: HQ/H C BRINTON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3430 UNIVERSITY OF MICHIGAN - ANN ARBOR **6287**
LINKING GCM HYDROLOGIC PARAMETERS TO THE RADIOBRIG HTNESS OF NORTHERN PRAIRIE AND ARCTIC TUNDRA
 03/03/1993 - 09/30/1997 FY98: \$0 Total: \$375,000
Prin. Invest.: A W ENGLAND
Tech. Officer: HQ/R E MURPHY
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3457 UNIVERSITY OF MICHIGAN - ANN ARBOR **6288**
DATA ANALYSIS AND THEORETICAL STUDIES OF THE LOWER THERMO- SPHERE
 03/19/1993 - 04/30/1997 FY98: \$0 Total: \$309,810
Prin. Invest.: T L KILLEEN
Tech. Officer: HQ/M M MELLOTT, HQ/G L WITHBROE
CASE Category: 13 - PHYSICS

NAGW 3585 UNIVERSITY OF MICHIGAN - ANN ARBOR **6289**
STUDIES FOR THE LOSS OF ATOMIC AND MOLECULAR SPECI ES FROM IO
 05/12/1993 - 06/30/1997 FY98: \$0 Total: \$130,218
Prin. Invest.: M COMB
Tech. Officer: HQ/H C BRINTON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3962 UNIVERSITY OF MICHIGAN - ANN ARBOR **6290**
MULTIDIMENSIONAL MHD MODEL STUDIES OF THE IONOSPHE RES OF VENUS AND MARS
 05/13/1994 - 03/31/1998 FY98: \$0 Total: \$242,221
Prin. Invest.: A NAGY
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4175 UNIVERSITY OF MICHIGAN - ANN ARBOR **6291**
DEVELOPMENT OF THE SPACE TETHERED INSTRUMENT CONCEPT FOR ITM SCIENCE
 10/28/1994 - 06/30/1998 FY98: \$0 Total: \$160,000
Prin. Invest.: B GILCHRIST
Tech. Officer: HQ/M M MELLOTT, HQ/J D BROHLIN
CASE Category: 13 - PHYSICS

NAGW 4367 UNIVERSITY OF MICHIGAN - ANN ARBOR **6292**
ARCHIVING AND RESTORATION OF VISIBLE AIRGLOW DATA FROM THE AE-C, AE-D, AND AE-E, AND DE-2 SPACECRAFT
 03/18/1995 - 12/31/1996 FY98: -\$6,256 Total: \$46,267
Prin. Invest.: M D BURRAGE
Tech. Officer: HQ/J B WILLETT
CASE Category: 22 - COMPUTER SCIENCE

NAGW 4388 UNIVERSITY OF MICHIGAN - ANN ARBOR **6293**
COMPOSITION AND EVALUATION OF THE ATMOSPHERE OF VENUS
 03/30/1995 - 04/30/1998 FY98: \$0 Total: \$81,560
Prin. Invest.: T DONAHUE
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAGW 4446 UNIVERSITY OF MICHIGAN - ANN ARBOR **6294**
ANALYSIS OF THE IUE SPECTRA OBTAINED DURING THE SH OEMAKER LEVY ENCOUNTER
 05/10/1995 - 09/30/1998 FY98: \$0 Total: \$114,000
Prin. Invest.: W HARRIS
Tech. Officer: HQ/J BERGSTRALH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4448 UNIVERSITY OF MICHIGAN - ANN ARBOR **6295**
THE HOT INTERSTELLAR MEDIUM IN SPIRALS, ELLIPTICAL AND CLUSTERS OF GALAXIES
 05/02/1995 - 05/31/1997 FY98: \$0 Total: \$115,000
Prin. Invest.: J N BREGMAN
Tech. Officer: HQ/G R RIEGLER
CASE Category: 11 - ASTRONOMY

NAGW 4494 UNIVERSITY OF MICHIGAN - ANN ARBOR **6296**
FULLY IMPLANTABLE INTEGRATED SILICON BIOTELEMETRY MICROSYSTEMS
 05/16/1995 - 02/28/1998 FY98: \$0 Total: \$427,570
Prin. Invest.: K NAJAFI
Tech. Officer: HQ/G C FOGLEMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4555 UNIVERSITY OF MICHIGAN - ANN ARBOR **6297**
DIGITAL TOPOGRAPHY FROM SAR INTERFEROMETRY: DETERMINATION OF AND CORRECTION FOR VEGETATION HEIGHT
 06/06/1995 - 03/14/1998 FY98: \$0 Total: \$197,823
Prin. Invest.: K SARABANDI, M C DOBSON, J VANZYL
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4611 UNIVERSITY OF MICHIGAN - ANN ARBOR **6298**
STUDIES OF INNER MAGNETOSPHERIC PROCESS AND COUPLING TO THE UNDERLYING ATMOSPHERE
 08/02/1995 - 10/31/1997 FY98: \$0 Total: \$150,000
Prin. Invest.: J U KOZYRA
Tech. Officer: HQ/J BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4704 UNIVERSITY OF MICHIGAN - ANN ARBOR **6299**
AN INNOVATIVE MINIATURE HIGH RESOLUTION FABRY-PEROT SPECTROMETER FOR PLANETARY ATMOSPHERIC RESEARCH
 08/24/1995 - 06/30/1998 FY98: \$0 Total: \$180,249
Prin. Invest.: W COOK
Tech. Officer: HQ/T KOSTIUK
CASE Category: 11 - ASTRONOMY

NAGW 4797 UNIVERSITY OF MICHIGAN - ANN ARBOR **6300**
THE SHOEMAKER-LEVY 9/JUPITER IMPACT: AURORAL AND HIGH ENERGY PROCESSES
 09/22/1995 - 09/30/1997 FY98: -\$1,732 Total: \$89,268
Prin. Invest.: M COMBI
Tech. Officer: HQ/E BARKER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 5017 UNIVERSITY OF MICHIGAN - ANN ARBOR **6301**
WHAT IS SPACE WEATHER? A WORKSHOP FOR SCIENCE WRITERS
 03/28/1996 - 03/31/1997 FY98: -\$776 Total: \$19,177
Prin. Invest.: C CLAUER
Tech. Officer: HQ/J D BOHLIN, GSFC/G L WITHBROE
CASE Category: 13 - PHYSICS

NAGW 5053 UNIVERSITY OF MICHIGAN - ANN ARBOR **6302**
GLOBAL OBSERVATIONS OF PLANETARY-SCALE WAVES
 05/17/1996 - 04/01/1999 FY98: \$0 Total: \$71,792
Prin. Invest.: R S LIEBERMAN
Tech. Officer: HQ/M M MELLOTT, HQ/G L WITHBROE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 5112 UNIVERSITY OF MICHIGAN - ANN ARBOR **6303**
APPLICATION OF MC-ICPMS TO THE MEASUREMENT OF ISOTOPIC ANOMALIES IN ZR, MO, RU, SN, TE AND W
 06/25/1996 - 12/31/1997 FY98: \$0 Total: \$45,000
Prin. Invest.: A H HALLIDAY
Tech. Officer: HQ/J NUTH, HQ/H C BRINTON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 5203 UNIVERSITY OF MICHIGAN - ANN ARBOR **6304**
ESTIMATING WATER STORED IN SOIL AND VEGETATION USING LSP MODEL SOIL WETNESS & SATELLITE RADIOBRIGHT
 09/26/1996 - 12/31/1997 FY98: \$0 Total: \$192,243
Prin. Invest.: A E NGLAND
Tech. Officer: HQ/M WEI, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5235 UNIVERSITY OF MICHIGAN - ANN ARBOR **6305**
RESEARCH (CONTINUING)
 10/09/1996 - 09/30/1997 FY98: \$0 Total: \$60,000
Prin. Invest.: J T CLARKE
Tech. Officer: HQ/J BERGSTRAHL, HQ/H C BRINTON
CASE Category: 13 - PHYSICS

NAS 5 30119 UNIVERSITY OF MICHIGAN - ANN ARBOR **6306**
SCIENTIFIC INTERPRETATION OF GPMS DATA
 06/15/1987 - 04/30/1999 FY98: \$34,000 Total: \$344,712
Prin. Invest.: S K ATREYA
Tech. Officer: GSFC/J R RICHARDS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 30120 UNIVERSITY OF MICHIGAN - ANN ARBOR **6307**
SCIENTIFIC INTERPRETATION OF GPMS DATA
 06/15/1987 - 04/30/1998 FY98: \$0 Total: \$291,891
Prin. Invest.: T M DONAHUE
Tech. Officer: GSFC/J R RICHARDS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 30943 UNIVERSITY OF MICHIGAN - ANN ARBOR **6308**
ELECTRONICS PACKAGE FOR THE COMET RENDEZVOUS ASTEROID FLYBY NEUTRAL GAS ION MASS SPECTROMETER
 02/25/1991 - 09/30/1999 FY98: \$54,938 Total: \$3,029,283
Prin. Invest.: G C ARIGNAN
Tech. Officer: GSFC/R L FROST
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 30955 UNIVERSITY OF MICHIGAN - ANN ARBOR **6309**
ELECTRONICS PACKAGE FOR THE HUYGENS PROBE; GAS CHROMATOGRAPH MASS SPECTROMETER
 04/08/1991 - 07/31/1998 FY98: \$74,467 Total: \$3,635,845
Prin. Invest.: G C ARIGNAN
Tech. Officer: GSFC/R L FROST
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 32361 UNIVERSITY OF MICHIGAN - ANN ARBOR **6310**
CASSINI/HUYGENS GAS CHROMATOGRAPH MASS SPECTROMETER (GC-MS) INVESTIGATION
 05/05/1994 - 11/4/1998 FY98: \$0 Total: \$150,413
Prin. Invest.: S A REYA
Tech. Officer: GSFC/J RICHARDS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NASA'S UNIVERSITY PROGRAM

NAS 5 32989 UNIVERSITY OF MICHIGAN - ANN ARBOR **6311**
PROVIDE ENGINEERING SUPPORT IN THE DEFINITION DESIGN AND TEST
OF THE PLANET-B NMS
 01/25/1996 - 09/30/1998 FY98: \$0 Total: \$1,352,255
Prin. Invest.: G CARIGNAN
Tech. Officer: GSFC/S WAY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 8 37108 UNIVERSITY OF MICHIGAN - ANN ARBOR **6312**
STUDY ENTITLED "RESEARCH ON ORBITAL PLASMA-ELECTRODYNAMICS
(ROPE)."
 04/14/1987 - 09/30/1998 FY98: \$0 Total: \$100,801
Prin. Invest.: B GILCHRIST
Tech. Officer: MSFC/M W CASTLEMAN, MSFC/R HOLDER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 8 39381 UNIVERSITY OF MICHIGAN - ANN ARBOR **6313**
SHUTTLE ELECTRODYNAMIC TETHER SYSTEM
 06/26/1992 - 09/30/1998 FY98: \$0 Total: \$5,803,590
Prin. Invest.: B GILCHRIST, B E GILCHRIST
Tech. Officer: MSFC/M CASTLEMAN
CASE Category: 13 - PHYSICS

NAS 8 40578 UNIVERSITY OF MICHIGAN - ANN ARBOR **6314**
CONTINUING DEVELOPMENT OF HYBRID MODEL OF THE NEUTRAL THER-
MOSPHERE
 04/19/1995 - 11/30/1997 FY98: \$16 Total: \$158,700
Prin. Invest.: A BURNS
Tech. Officer: GSFC/J ANDERSON, GSFC/S PEARSON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 856 UNIVERSITY OF MICHIGAN - ANN ARBOR **6315**
EFFECTS OF MICROGRAVITY ON DEVELOPMENT OF THIGH MUSCLES
 05/25/1994 - 12/31/1999 FY98: \$97,600 Total: \$384,998
Prin. Invest.: K I CLARK, K F BARALD
Tech. Officer: ARC/D A REISS-BUBENHEIM, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 2 5224 UNIVERSITY OF MICHIGAN - ANN ARBOR **6316**
MICROWAVE TECHNIQUES FOR REMOTE DETECTION OF TPS FAILURE
 07/08/1997 - 06/30/1998 FY98: \$20,000 Total: \$40,000
Prin. Invest.: M C DOBSON
Tech. Officer: ARC/J S SALUTE
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 381 UNIVERSITY OF MICHIGAN - ANN ARBOR **6317**
POLYMER PRECURSORS FOR BARIUM AND STRONTIUM ALUMINOSILICATE FIBER REINFORCE CERAMIC MATRICES
 12/20/1994 - 08/26/1997 FY98: \$0 Total: \$89,977
Prin. Invest.: R M LAINE
Tech. Officer: LERC/N P BANSAL
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 474 UNIVERSITY OF MICHIGAN - ANN ARBOR **6318**
INVESTIGATION OF DROOP FORMATION BY VORTEX RING IN
MICROGRAVITY
 05/20/1996 - 05/28/2000 FY98: \$39,540 Total: \$176,372
Prin. Invest.: L P BERNAL
Tech. Officer: LERC/J B MCGUILLEN
CASE Category: 46 - MECHANICAL ENGR

NCC 3 482 UNIVERSITY OF MICHIGAN - ANN ARBOR **6319**
RADIANT EXTINCTION OF GASEOUS DIFFUSION FLAMES
 06/15/1996 - 06/14/2000 FY98: \$59,000 Total: \$179,000
Prin. Invest.: A ATREYA
Tech. Officer: LERC/K SACKSTEADER
CASE Category: 13 - PHYSICS

NCC 5 146 UNIVERSITY OF MICHIGAN - ANN ARBOR **6320**
RESEARCH FOR GRAND CHALLENGE APPLICATIONS
 08/02/1996 - 08/02/1999 FY98: \$400,000 Total: \$1,160,000
Prin. Invest.: T GOMBOSI
Tech. Officer: GSFC/J R FISCHER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 5 296 UNIVERSITY OF MICHIGAN - ANN ARBOR **6321**
RADAR REMOTE SENSING OF LAND-COVER AND BIOMASS IN THE AMA-
ZON
 06/16/1998 - 01/31/1999 FY98: \$124,713 Total: \$124,713
Prin. Invest.: M DOBSON
Tech. Officer: GSFC/D DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 8 84 UNIVERSITY OF MICHIGAN - ANN ARBOR **6322**
RESEAR GGS/POLAR TIDE CO-INVESTIGATOR PROGRAM MO & DA
PHASE
 02/21/1996 - 10/29/1998 FY98: \$0 Total: \$88,920
Prin. Invest.: A F NAGY, J U KOZYRA, NONE
Tech. Officer: MSFC/T E MOORE, MSFC/C J POLLOCK
CASE Category: 13 - PHYSICS

NGT 30219 UNIVERSITY OF MICHIGAN - ANN ARBOR **6323**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/30/1993 - 09/30/1997 FY98: -\$1,812 Total: \$64,188
Prin. Invest.: P J SAMSON
Tech. Officer: HQ/G ASRAR, HQ/D M BUTLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30258 UNIVERSITY OF MICHIGAN - ANN ARBOR **6324**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/21/1994 - 10/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J A TEERI
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 40007 UNIVERSITY OF MICHIGAN - ANN ARBOR **6325**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 10/18/1989 - 01/31/1998 FY98: \$0 Total: \$2,580,000
Prin. Invest.: R JOHNSON
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51256 UNIVERSITY OF MICHIGAN - ANN ARBOR **6326**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/17/1994 - 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: A M WAAS
Tech. Officer: LARC/L EVANS
CASE Category: 41 - AERONAUTICAL ENGR

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| <p>NGT 51323 UNIVERSITY OF MICHIGAN - ANN ARBOR 6327 GRADUATE STUDENT RESEARCHERS PROGRAM 07/06/1994 - 06/30/1997 FY98: -\$28,146 Total: \$37,854 <i>Prin. Invest.:</i> T I GOMBOSI <i>Tech. Officer:</i> HQ/D HOLLAND CASE Category: 13 - PHYSICS</p> | <p>NGT 3 52319 UNIVERSITY OF MICHIGAN - ANN ARBOR 6335 GRADUATE STUDENT RESEARCHERS PROGRAM 08/06/1996 - 06/14/1999 FY98: \$22,000 Total: \$66,000 <i>Prin. Invest.:</i> S C ECCIO <i>Tech. Officer:</i> LERC/D MONTEGANI CASE Category: 46 - MECHANICAL ENGR</p> |
| <p>NGT 51408 UNIVERSITY OF MICHIGAN - ANN ARBOR 6328 GRADUATE STUDENT RESEARCHERS PROGRAM 07/17/1995 - 08/31/1997 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> J N BERGMAN <i>Tech. Officer:</i> HQ/D HOLLAND CASE Category: 11 - ASTRONOMY</p> | <p>NGT 3 52331 UNIVERSITY OF MICHIGAN - ANN ARBOR 6336 GRADUATE STUDENT RESEARCHERS PROGRAM 06/10/1997 - 07/31/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> A K GOSH <i>Tech. Officer:</i> LERC/F J MONTEGANI CASE Category: 49 - ENGINEERING, OTHER</p> |
| <p>NGT 51409 UNIVERSITY OF MICHIGAN - ANN ARBOR 6329 GRADUATE STUDENT RESEARCHERS PROGRAM 07/17/1995 - 08/31/1997 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> J P BOYD <i>Tech. Officer:</i> HQ/D HOLLAND CASE Category: 31 - ATMOSPHERIC SCIENCE</p> | <p>NGT 3 52339 UNIVERSITY OF MICHIGAN - ANN ARBOR 6337 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT RESEARCHERS PROGRAM 09/17/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> D P WILIDIS <i>Tech. Officer:</i> LERC/F J MONTEGANI CASE Category: 49 - ENGINEERING, OTHER</p> |
| <p>NGT 51689 UNIVERSITY OF MICHIGAN - ANN ARBOR 6330 GRAD. STUD. RESEARCH PROG 08/02/1996 - 07/31/1997 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> F NORI <i>Tech. Officer:</i> HQ/GLESANE CASE Category: 13 - PHYSICS</p> | <p>NGT 4 52404 UNIVERSITY OF MICHIGAN - ANN ARBOR 6338 DESCRIPTION OF CONTRACT GRADUATE STUDENT RESEARCHERS PROGRAM 06/10/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> D BERNSTEIN <i>Tech. Officer:</i> DFIC/K K GUPTA, DFRC/L S VOELKER CASE Category: 41 - AERONAUTICAL ENGR</p> |
| <p>NGT 1 52136 UNIVERSITY OF MICHIGAN - ANN ARBOR 6331 GRADUATE STUDENT RESEARCHERS PROGRAM 06/19/1996 - 06/30/1998 FY98: \$1 Total: \$40,001 <i>Prin. Invest.:</i> J F DRISCOLL <i>Tech. Officer:</i> LARC/G S DISKIN CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NGT 5 27 UNIVERSITY OF MICHIGAN - ANN ARBOR 6339 INVESTIGATION OF THE ORIGIN AND CURRENT STATE OF JUPITER'S ATMOSPHERE USING GALILEO PROBE MASS 07/15/1996 - 07/31/1999 FY98: \$22,000 Total: \$66,000 <i>Prin. Invest.:</i> S UUTREYA <i>Tech. Officer:</i> GSFC/G A SOFFEN, GSFC/P MAHAFFY CASE Category: 11 - ATMOSPHERIC SCIENCE</p> |
| <p>NGT 2 52215 UNIVERSITY OF MICHIGAN - ANN ARBOR 6332 GROUPING RULES IN CLASSIFIER SYSTEMS TOWARDS THE EVOLUTION OF HIERARCHICAL ORGANIZATION 07/16/1996 - 08/31/1998 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> J H HOLLAND <i>Tech. Officer:</i> ARC/P D LAIRD CASE Category: 45 - ELECTRICAL ENGR</p> | <p>NGT 5 75 UNIVERSITY OF MICHIGAN - ANN ARBOR 6340 A PARALLEL ADAPTIVE MESH REFINEMENT SCHEME FOR SUPERNOVA REMNANTS 06/16/1998 - 06/30/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> K POWELL <i>Tech. Officer:</i> GSFC/G SOFFEN CASE Category: 41 - AERONAUTICAL ENGR</p> |
| <p>NGT 2 52249 UNIVERSITY OF MICHIGAN - ANN ARBOR 6333 AN ADAPTIVE CARTESIAN METHOD FOR SOLVING THREE-DIMENSIONAL FLOWS PAST MOVING & DEFORMING GEOMETRIES 08/28/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> K G POWELL <i>Tech. Officer:</i> ARC/M J AFTOSMIS, ARC/T PULLIAM CASE Category: 29 - MATH/COMPUTER SCI, OTHER</p> | <p>NGT 5 30172 UNIVERSITY OF MICHIGAN - ANN ARBOR 6341 THE USE OF REMOTE SENSING METHODS FOR STUDYING FIRE-INDUCED LAND COVER CHANGES IN BOREAL FORESTS 09/04/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> C OLSON, FRENCH <i>Tech. Officer:</i> GSFC/M Y WEI CASE Category: 31 - ENVIRONMENTAL SCI, OTHER</p> |
| <p>NGT 3 52311 UNIVERSITY OF MICHIGAN - ANN ARBOR 6334 A PROPOSAL TO DEVELOP CATHODE TECHNOLOGY FOR SUB-KILOWATT STATIONARY PLASMA THRUSTERS 06/21/1996 - 06/30/1999 FY98: \$22,000 Total: \$66,000 <i>Prin. Invest.:</i> A D GALLIMORE <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> LERC/F MONTEGANI CASE Category: 49 - ENGINEERING, OTHER</p> | <p>NGT 5 40062 UNIVERSITY OF MICHIGAN - ANN ARBOR 6342 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM. 03/15/1997 - 01/31/2001 FY98: \$475,000 Total: \$855,000 <i>Prin. Invest.:</i> R M JOHNSON <i>Tech. Officer:</i> GSFC/L KEFFER CASE Category: 96 - MULTI INTERDISCIPL, OTHER</p> |

NGT 5 50024 UNIVERSITY OF MICHIGAN – ANN ARBOR **6343**
VARIATION DATA ASSIMILATION FOR ATMOSPHERIC SOLITA
 07/14/1997 – 12/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J BOYD
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50025 UNIVERSITY OF MICHIGAN – ANN ARBOR **6344**
X-RAY EMISSION FROM GAS AND STARS IN ELLIPTICAL GA
 07/14/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J BREGMAN
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50114 UNIVERSITY OF MICHIGAN – ANN ARBOR **6345**
GRADUATE STUDENT RESEARCHERS PROGRAM – STUDENT: C
 09/04/1997 – 07/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: F NORI
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50154 UNIVERSITY OF MICHIGAN – ANN ARBOR **6346**
THE ABUNDANCE AND DISTRIBUTION OF SO₂ IN IO'S ATMOSPHERE
 09/11/1997 – 09/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: G BALLESTER
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50199 UNIVERSITY OF MICHIGAN – ANN ARBOR **6347**
MARKET-BASED DISTRIBUTED TASK ALLOCATION IN AUTONOMOUS SPACECRAFT
 06/24/1998 – 08/31/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M WELLMAN
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 22 – COMPUTER SCIENCE

NGT 5 90052 UNIVERSITY OF MICHIGAN – ANN ARBOR **6348**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 03/05/1997 – 08/14/1998 FY98: \$0 Total: \$48,000
Prin. Invest.: S GREGERMAN
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 – ENGINEERING, OTHER

NGT 8 52805 UNIVERSITY OF MICHIGAN – ANN ARBOR **6349**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/01/1995 – 08/01/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: C AKERLOT
Tech. Officer: MSFC/F SIX
CASE Category: 13 – PHYSICS

NGT 8 52864 UNIVERSITY OF MICHIGAN – ANN ARBOR **6350**
IDENTIFICATION OF LONG TERM CHANGE IN SOCIETY AND SETTLEMENT OF THE KHABUR DRAINAGE
 07/28/1998 – 08/13/2000 FY98: \$20,000 Total: \$20,000
Prin. Invest.: H T WRIGHT
Tech. Officer: MSFC/J F DOWDY
CASE Category: 71 – ANTHROPOLOGY

NGT 9 3 UNIVERSITY OF MICHIGAN – ANN ARBOR **6351**
EFFECTS OF AGE/VESTIBULAR REHABILITATION ON POSTURAL CONTROL
 05/31/1995 – 12/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: A D KUO
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 47 – METAL & MATERIALS ENGR

NGT10 52613 UNIVERSITY OF MICHIGAN – ANN ARBOR **6352**
GRADUATE STUDENT RESEARCH GRANT
 09/01/1997 – 07/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: A PRAKASH
Tech. Officer: KSC/G BURKINGHAM
CASE Category: 22 – COMPUTER SCIENCE

NAG 1 1175 WAYNE STATE UNIVERSITY **6353**
ACTIVE CONTROL OF PANEL VIBRATIONS INDUCED BY A BOUNDARY-LAYER FLOW
 08/10/1990 – 06/30/1998 FY98: \$0 Total: \$90,295
Prin. Invest.: P L CHOW
Tech. Officer: LARC/L MAESTRELLO, LARC/C A POWELL
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1043 WAYNE STATE UNIVERSITY **6354**
MODELING & VERIFICATION OF HYBRID SYSTEMS
 05/01/1996 – 11/30/1998 FY98: \$22,500 Total: \$82,500
Prin. Invest.: F LIN
Tech. Officer: ARC/G MEYER
CASE Category: 49 – ENGINEERING, OTHER

NAG 3 1729 WAYNE STATE UNIVERSITY **6355**
SOOT AND RADIATION-MEASUREMENT IN MICROGRAVITY TURBULENT JET DIFFUSION FLAMES
 04/01/1995 – 09/30/1998 FY98: \$0 Total: \$234,000
Prin. Invest.: J KU
Tech. Officer: LERC/P S GREENBERG
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1800 WAYNE STATE UNIVERSITY **6356**
EXIMER LASER BASED COMBUSTION DIAGNOSTICS
 01/22/1996 – 01/21/1999 FY98: \$75,000 Total: \$200,000
Prin. Invest.: E W ROTHE, G P RECK
Tech. Officer: LERC/R C ANDERSON
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 3 2180 WAYNE STATE UNIVERSITY **6357**
CHARACTERIZATION OF MULTI-JUNCTION SOLAR CELLS CHARACTERIZATION OF MULTI-JUNCTION SOLAR CELLS
 07/18/1998 – 06/18/1999 FY98: \$35,000 Total: \$35,000
Prin. Invest.: P WOODYARD
Tech. Officer: LERC/D BRINKER
CASE Category: 45 – ELECTRICAL ENGR

NAGW 3260 WAYNE STATE UNIVERSITY **6358**
ARCHITECTURALLY REALISTIC MODELS FOR OPTICAL RADIATION REGIME IN VEGETATION
 11/27/1992 – 12/31/1998 FY98: \$0 Total: \$453,039
Prin. Invest.: N S GOEL
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 3 580 WAYNE STATE UNIVERSITY **6359**
APPLICATION OF THE METHOD OF SPACE-TIME CONSERVATION ELEMENT AND SOLUTION ELEMENT TO THE CALCULATION
 01/08/1998 – 11/02/1998 FY98: \$79,879 Total: \$79,879
Prin. Invest.: S T YU, M C LAI
Tech. Officer: LERC/P C JORGENSEN
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1979 WESTERN MICHIGAN UNIVERSITY **6360**
NEW RESEARCH GRANT
 12/10/1997 – 12/09/1998 FY98: \$49,862 Total: \$49,862
Prin. Invest.: W W LIU
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 – AERONAUTICAL ENGR

NAG13 60 WESTERN MICHIGAN UNIVERSITY **6361**
TWO-DIMENSIONAL ANALYSIS OF ALTITUDE DIFFUSER
 09/30/1997 – 10/01/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: C CHRISTOPHER
Tech. Officer: SSC/JOYCE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

MINNESOTA

NAG 5 3719 AUGSBURG COLLEGE **6362**
A WEB SERVER FOR MACCS MAGNETOMETER DATA
 01/30/1997 – 01/31/1998 FY98: \$0 Total: \$10,353
Prin. Invest.: D J ENGBRETSON
Tech. Officer: GSFC/J WILLETT
CASE Category: 13 – PHYSICS

NAG 5 7518 CONCORDIA COLLEGE IN MOORHEAD **6363**
MARS MOLECULAR AND ISOTOPIC ANALYSIS RESEARCH STUDY
 06/12/1998 – 08/14/1998 FY98: \$2,944 Total: \$2,944
Prin. Invest.: H MANNING
Tech. Officer: GSFC/P MAHAFFY
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3095 MANKATO STATE UNIVERSITY **6364**
GAMMA RAY BURST MODEL CONSTRAINTS IMPOSED BY BATSE OBSERVATIONS
 10/05/1995 – 10/14/1996 FY98: -\$3,757 Total: \$36,243
Prin. Invest.: T C OWENS
Tech. Officer: GSFC/J RICHARDS, GSFC/N WHITE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3591 MANKATO STATE UNIVERSITY **6365**
BATSE POST-3B SKY EXPOSURE
 01/02/1997 – 12/14/1997 FY98: \$0 Total: \$40,006
Prin. Invest.: J E HAKKILA
Tech. Officer: GSFC/J PNORRIS
CASE Category: 11 – ASTRONOMY

NAG 8 192 MANKATO STATE UNIVERSITY **6366**
PROJECT JOVE
 04/25/1991 – 12/01/1997 FY98: \$0 Total: \$124,007
Prin. Invest.: J HAKKILA, H SHENG, E BOYD
Tech. Officer: MSFC/F SIX
CASE Category: 99 – MULTI-INTERDISCIPL, OTHER

NAG 5 4904 MOORHEAD STATE UNIVERSITY **6367**
EXPERIMENTAL DETERMINATION OF THE EFFECTS OF F02 A ON ACTIVITIES IN SILICATE MELTS
 06/19/1997 – 07/31/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: D J COLSON
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 7366 MOORHEAD STATE UNIVERSITY **6368**
ELECTROCHEMICAL STUDY OF SILICATE MELT STRUCTURE AND COMPOSITIONAL ACTIVITIES
 05/15/1998 – 07/31/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: R J COLSON
Tech. Officer: H J J BOYCE
CASE Category: 11 – ASTRONOMY

NAGW 5108 MOORHEAD STATE UNIVERSITY **6369**
EXPERIMENTAL DETERMINATION OF THE EFFECTS OF F02 & VOLATILE FUGACITIES ON ACTIVITIES IN SILICATE
 07/31/1996 – 09/30/1997 FY98: \$0 Total: \$30,000
Prin. Invest.: R J COLSON
Tech. Officer: H J J NUTH, HQ/H C BRINTON
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 1 1788 SAINT CLOUD STATE UNIVERSITY **6370**
DEFINING NAVIGATION ACCURACIES FOR LOW VISIBILITY TAXING ON THE AIRPORT SURFACE
 12/15/1995 – 11/30/1997 FY98: \$0 Total: \$246,824
Prin. Invest.: D RANKIN
Tech. Officer: LARC/R W WILLS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 6726 SAINT CLOUD STATE UNIVERSITY **6371**
PARENT MOLECULES IN COMET C/1995 01 (HALE BOPP)
 12/12/1997 – 06/30/1999 FY98: \$43,105 Total: \$43,105
Prin. Invest.: D P WOMACK
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 – ASTRONOMY

NAG 1 1498 UNIV OF MINNESOTA **6372**
COMPUTATIONAL METHODS FOR THE SIMULATION OF HYPER-SONIC RE-ENTRY FLOWS
 05/25/1993 – 06/15/1997 FY98: -\$1 Total: \$226,389
Prin. Invest.: G V CANDLER
Tech. Officer: LARC/K SUTTON, LARC/P A GNOFFO
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1938 UNIV OF MINNESOTA **6373**
INVESTIGATION OF MESOSCALE VARIABILITY IN CONVECTIVE BOUNDARY LAYER DEVELOPMENT USING
 05/28/1997 – 05/31/1999 FY98: \$0 Total: \$53,639
Prin. Invest.: K A DAVIS
Tech. Officer: LARC/S ISMAIL, LARC/W T STEVENS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 2 1125 UNIV OF MINNESOTA **6374**
NUMERICAL SIMULATION OF ATMOSPHERIC ENTRY FLOWS
 04/11/1997 – 09/30/1998 FY98: \$50,000 Total: \$100,000
Prin. Invest.: G V CANDLER
Tech. Officer: ARIC/D R OLYNICK, ARIC/M LOOMIS
CASE Category: 42 – AERONAUTICAL ENGR

NAG 2 1151 UNIV OF MINNESOTA **6375**
PERFORMANCE & PROBABILITY ISSUES IN SHARED FILE SYSTEMS
 08/12/1997 - 08/31/1998 FY98: \$0 Total: \$110,879
Prin. Invest.: M T O'KEEFE
Tech. Officer: ARC/J R LEKASHMAN, ARC/S F WALWORTH
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 1332 UNIV OF MINNESOTA **6376**
ARC CATHODE ATTACHMENT STUDY
 02/27/1992 - 09/30/1997 FY98: \$0 Total: \$195,000
Prin. Invest.: J V HEBERLEIN
Tech. Officer: LERC/C J SARMIENTO, HQ/F M CURRAN
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1638 UNIV OF MINNESOTA **6377**
FILM COOLING WITH ANISOTROPIC DIFFUSION AND HOLE EFFECTS: EXPERIMENTS AND COMPUTATION
 07/01/1994 - 06/30/1998 FY98: \$0 Total: \$305,177
Prin. Invest.: S V PATANKAR, T W SIMON
Tech. Officer: LERC/J R SCHWAB
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1732 UNIV OF MINNESOTA **6378**
MEASUREMENTS IN TRANSITIONAL BOUNDARY LAYER UNDER LOW-PRESSURE TURBINE AIRFOIL CONDITIONS
 04/01/1995 - 11/30/1998 FY98: \$56,000 Total: \$238,529
Prin. Invest.: T W SIMON
Tech. Officer: LERC/F F SIMON
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1975 UNIV OF MINNESOTA **6379**
ROBUST NONLINEAR FEEDBACK CONTROL OF AIRCRAFT PROPELLSION SYSTEMS
 10/22/1996 - 10/31/1999 FY98: \$75,605 Total: \$149,471
Prin. Invest.: W L GARRARD, G T BALAS
Tech. Officer: LERC/S GARG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2187 UNIV OF MINNESOTA **6380**
DEVELOPMENT OF A CALIBRATION SYSTEM FOR EVALUATING INSTRUMENTS FOR MEASURING AEROSOLS AND PARTICULATES
 08/06/1998 - 05/25/2000 FY98: \$100,000 Total: \$100,000
Prin. Invest.: D H PUI
Tech. Officer: LERC/T M SANDERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2108 UNIV OF MINNESOTA **6381**
DEVELOPMENT OF A GENERALIZED FRAMEWORK FOR IDENTIFYING AND STUDYING SCALE INVARIANT RELATIONSHIPS..
 10/08/1992 - 10/14/1997 FY98: \$0 Total: \$270,450
Prin. Invest.: E FOULOUA-GEORGIOU
Tech. Officer: GSFC/R F CAHALAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2698 UNIV OF MINNESOTA **6382**
ENHANCED ACCESS FOR FOREST MANAGEMENT PLANNING
 08/25/1994 - 08/31/1999 FY98: \$0 Total: \$646,982
Prin. Invest.: T E BURK
Tech. Officer: GSFC/F HASLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2838 UNIV OF MINNESOTA **6383**
DATA ANALYSIS OF THE WAVES EXPERIMENT
 12/14/1994 - 02/28/1998 FY98: \$0 Total: \$1,009,995
Prin. Invest.: P J KELLOGG
Tech. Officer: GSFC/M L KAISER
CASE Category: 11 - ASTRONOMY

NAG 5 2980 UNIV OF MINNESOTA **6384**
UNCOVERING ULTRALUMINOUS GALAXIES IN THE IRAS FSC THROUGH RADIO AND OPTICAL IDEN
 06/27/1995 - 06/30/1998 FY98: \$0 Total: \$42,888
Prin. Invest.: G S ALDERING
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3217 UNIV OF MINNESOTA **6385**
ANALYSIS OF DATA FROM THE UCLA MAGNETOMETER ON THE NASA POLAR SPACECRAFT
 04/26/1996 - 10/31/1998 FY98: \$25,000 Total: \$227,261
Prin. Invest.: C CATELL
Tech. Officer: GSFC/R A HOFFMAN
CASE Category: 13 - PHYSICS

NAG 5 3373 UNIV OF MINNESOTA **6386**
RELATIVE ABUNDANCES AND STAR FORMATION HISTORIES OF DWARF GALAXIES
 08/28/1996 - 08/31/1997 FY98: \$0 Total: \$107,507
Prin. Invest.: E D SKILLMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3395 UNIV OF MINNESOTA **6387**
MINNESOTA BLOCK GRANT FOR ISO OBSERVATIONS
 09/09/1996 - 08/14/1999 FY98: \$61,000 Total: \$141,200
Prin. Invest.: R GEHRZ
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3533 UNIV OF MINNESOTA **6388**
THERMOREGULATION AND HEAT EXCHANGE IN A NONUNIFORM DURING SIMULATED EXTENDED EVA
 11/18/1996 - 08/31/1998 FY98: \$223,664 Total: \$447,328
Prin. Invest.: V S KOSCHEVEV
Tech. Officer: GSFC/J D COLLIER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3735 UNIV OF MINNESOTA **6389**
STUDY FOR AN AURORAL MULTI-PROBE SATELLITE MISSION
 03/03/1997 - 02/28/1999 FY98: \$0 Total: \$200,000
Prin. Invest.: D A CATTELL
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 3980 UNIV OF MINNESOTA **6390**
KINETICS & MECHANISMS OF ATMOSPHERIC PHOTOOXIDATION OF HYDROFLUOROCARBONS & HYDROFLUOROCARBONS
 03/05/1997 - 01/31/1999 FY98: \$103,082 Total: \$205,945
Prin. Invest.: R W CARR
Tech. Officer: GSFC/M J KURYLO
CASE Category: 11 - ASTRONOMY

NAG 5 3998 UNIV OF MINNESOTA **6391**
WEB EXPLORATION TOOLS FOR A FAST FEDERATED OPTICAL
 03/06/1997 - 02/28/1999 FY98: \$110,611 Total: \$225,911
Prin. Invest.: P M HUMPHREYS
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4330 UNIV OF MINNESOTA **6392**
RARE GAS AND NITROGEN STUDIES ON LUNAR, METEORITIC TERRESTRIAL MATERIALS
 04/28/1997 - 09/30/1998 FY98: \$0 Total: \$138,000
Prin. Invest.: D O PEPIN
Tech. Officer: GSFC/D F NAVA
CASE Category: 12 - CHEMISTRY

NAG 5 4466 UNIV OF MINNESOTA **6393**
A THREE-DIMENSIONAL, TIME-DEPENDENT MODEL OF THE ION WAVES WITH THE IONOSPHERE
 05/21/1997 - 04/30/1999 FY98: \$37,248 Total: \$108,190
Prin. Invest.: D L LYSACK
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4705 UNIV OF MINNESOTA **6394**
IR IMAGING, SPECTROSCOPY & PHOTOMETRIC STUDIES OF
 06/11/1997 - 06/30/1998 FY98: \$0 Total: \$27,500
Prin. Invest.: D D GEHRZ
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAG 5 4709 UNIV OF MINNESOTA **6395**
ANOMALOUS ISOTOPE ABUNDANCES IN EXTRATERRESTRIAL MATERIALS
 06/11/1997 - 03/31/1999 FY98: \$28,000 Total: \$76,000
Prin. Invest.: D O PEPIN
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4956 UNIV OF MINNESOTA **6396**
RHEOLOGY OF PARTIALLY MOLTEN AMMONIA-WATER ICE
 06/23/1997 - 03/31/1998 FY98: \$0 Total: \$49,400
Prin. Invest.: D L KOHLSTEDT
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 5048 UNIV OF MINNESOTA **6397**
A ROCKET EXPERIMENT TO STUDY PULSATING AURORA
 11/02/1995 - 02/28/1998 FY98: \$20,676 Total: \$45,721
Prin. Invest.: P J KELLOGG
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5055 UNIV OF MINNESOTA **6398**
MAGNETOHYDRODYNAMICS (MHD) AND DIFFUSE SHOCK ACCELERATION
 03/27/1996 - 03/31/1998 FY98: \$58,602 Total: \$60,000
Prin. Invest.: T W JONES
Tech. Officer: GSFC/H C NEEDLEMAN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 5077 UNIV OF MINNESOTA **6399**
ENERGY DEPENDENCE OF FRAGMENTATION OF UH COSMIC RAY NUCLEI
 05/22/1996 - 03/31/1998 FY98: \$0 Total: \$69,000
Prin. Invest.: C J MADDINGTON
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5113 UNIV OF MINNESOTA **6400**
THE PROPAGATION OF UH COSMIC RAY NUCLEI FUNDING FOR FIRST YEAR OF GRANT
 04/09/1997 - 03/31/1999 FY98: \$0 Total: \$37,280
Prin. Invest.: C J MADDINGTON
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 12 - CHEMISTRY

NAG 5 5172 UNIV OF MINNESOTA **6401**
A VERY HIGH TIME RESOLUTION ROCKET INVESTIGATION OF IONOSPHERIC PLASMA PHYSICS ASSOCIATED WITH ATMOSPHERIC PLASMA
 03/30/1998 - 12/31/1998 FY98: \$198,227 Total: \$198,227
Prin. Invest.: J R WYGGANT
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5182 UNIV OF MINNESOTA **6402**
TIME DEPENDENT SIMULATION OF NONLINEAR COSMIC-RAY ACCELERATION IN SHOCKS: A POWERFUL NEW APPROACH
 03/26/1998 - 02/28/1999 FY98: \$44,890 Total: \$44,890
Prin. Invest.: T W JONES
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6191 UNIV OF MINNESOTA **6403**
TITLE: MORPHOLOGICAL ANALYSIS OF BRAIDED RIVERS AND
 08/13/1997 - 07/31/2000 FY98: \$0 Total: \$84,254
Prin. Invest.: E FOUFOULA-GEORGI
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6416 UNIV OF MINNESOTA **6404**
HEAVY ELEMENT ABUNDANCES: CLUES TO THE EVOLUTION OF STARS (LTS)
 10/30/1997 - 10/31/1998 FY98: \$108,376 Total: \$108,376
Prin. Invest.: D G ARNETT
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6609 UNIV OF MINNESOTA **6405**
ENHANCING REMOTE SENSING RESEARCH AND EDUCATION AT THE UNIVERSITY OF MINNESOTA
 12/16/1997 - 11/30/1998 FY98: \$199,604 Total: \$199,604
Prin. Invest.: M B UER
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6797 UNIV OF MINNESOTA **6406**
RHEOLOGY OF DIABASE: IMPLICATIONS FOR TECTONICS ON VENUS AND MARS
 02/19/1998 - 03/31/2001 FY98: \$71,121 Total: \$71,121
Prin. Invest.: D L KOHLSTEDT
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

| | | | |
|-------------------------------------------------------------------------------------------------------------|-------------------|------------------|--|
| NAG 5 7094 | UNIV OF MINNESOTA | 6407 | |
| RARE GAS AND NITROGEN STUDIES ON LUNAR, METEORITIC , AND SELECTED TERRESTRIAL MATERIALS | | | |
| 05/20/1998 – 03/14/1999 | FY98: \$128,000 | Total: \$128,000 | |
| <i>Prin. Invest.:</i> R O PEPIN | | | |
| <i>Tech. Officer:</i> HQ/J BOYCE | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAG 5 7202 | UNIV OF MINNESOTA | 6408 | |
| CONTINUING DATA ANALYSIS OF THE WAVES EXPERIMENT ON THE WIND SPACECRAFT | | | |
| 04/22/1998 – 02/28/1999 | FY98: \$295,000 | Total: \$295,000 | |
| <i>Prin. Invest.:</i> P KELLOG | | | |
| <i>Tech. Officer:</i> GSFC/K OGILVIE | | | |
| <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | | | |
| NAG 5 7599 | UNIV OF MINNESOTA | 6409 | |
| REGIONAL HYDROLOGIC SIMULATION MODEL TO STUDY AQUIFER-ATMOSPHERE INTER-ACTIONS ON INTERANNUAL-DECADE | | | |
| 07/21/1998 – 06/30/2001 | FY98: \$250,000 | Total: \$250,000 | |
| <i>Prin. Invest.:</i> M PERSON | | | |
| <i>Tech. Officer:</i> GSFC/E T ENGMAN | | | |
| <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE | | | |
| NAG 8 1258 | UNIV OF MINNESOTA | 6410 | |
| ATOMISTIC SIMULATIONS OF CADMIUM TELLURIDE | | | |
| 04/15/1996 – 04/16/2000 | FY98: \$95,333 | Total: \$227,333 | |
| <i>Prin. Invest.:</i> J DERBY | | | |
| <i>Tech. Officer:</i> MSFC/C TALLEY, MSFC/D NOEVER | | | |
| <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER | | | |
| NAG 8 1349 | UNIV OF MINNESOTA | 6411 | |
| SELF-ASSEMBLY OF HEPATOCYTE SPHEROIDS IN MICRO-GRAVITY | | | |
| 06/19/1997 – 11/30/1998 | FY98: \$131,736 | Total: \$220,736 | |
| <i>Prin. Invest.:</i> W S HU, L HANSEN, R KEMMEL | | | |
| <i>Tech. Officer:</i> MSFC/C R TALLEY, JSC/S R GONDA | | | |
| <i>CASE Category:</i> 51 – BIOLOGY (EXCLUDING ENVIR) | | | |
| NAG 8 1474 | UNIV OF MINNESOTA | 6412 | |
| THEORETICAL ANALYSIS OF 3D TRANSIENT CONVECTION AND SEGREGATION | | | |
| 02/06/1998 – 01/31/2002 | FY98: \$93,333 | Total: \$93,333 | |
| <i>Prin. Invest.:</i> J J DERBY, A J YECKEL | | | |
| <i>Tech. Officer:</i> MSFC/C TALLEY | | | |
| <i>CASE Category:</i> 13 – PHYSICS | | | |
| NAG 8 1519 | UNIV OF MINNESOTA | 6413 | |
| SUBGRID SCALE PRECIPITATION VARIABILITY OVER THE MISSISSIPPI RIVER BASIN | | | |
| 05/01/1998 – 04/30/2001 | FY98: \$106,766 | Total: \$106,766 | |
| <i>Prin. Invest.:</i> E FOULOUA-GEORGIU | | | |
| <i>Tech. Officer:</i> MSFC/J ARNOLD | | | |
| <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE | | | |
| NAG 9 863 | UNIV OF MINNESOTA | 6414 | |
| SOLAR WIND SAMPLE RETURN DISCOVERY MISSION | | | |
| 03/11/1996 – 05/13/1998 | FY98: \$0 | Total: \$15,000 | |
| <i>Prin. Invest.:</i> R O PEPIN | | | |
| <i>Tech. Officer:</i> JSC/E STANSBERRY | | | |
| <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER | | | |
| NAG 9 919 | UNIV OF MINNESOTA | 6415 | |
| PARRALLEL 3-D COMP OF FLUID DYNAMICS AND FLUID ... | | | |
| 12/04/1996 – 10/31/1999 | FY98: \$0 | Total: \$48,000 | |
| <i>Prin. Invest.:</i> T E TEZDUYAR | | | |
| <i>Tech. Officer:</i> JSC/J MURATORE, JSC/F MARTIN | | | |
| <i>CASE Category:</i> 49 – ENGINEERING, OTHER | | | |
| NAG 9 1007 | UNIV OF MINNESOTA | 6416 | |
| GENESIS DISCOVERY MISSION | | | |
| 05/06/1998 – 08/31/1999 | FY98: \$117,194 | Total: \$117,194 | |
| <i>Prin. Invest.:</i> R O PEPIN | | | |
| <i>Tech. Officer:</i> JSC/E K STANSBERRY | | | |
| <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER | | | |
| NAG 9 1043 | UNIV OF MINNESOTA | 6417 | |
| FINGER COMFORT MANAGEMENT | | | |
| 06/26/1998 – 06/30/1999 | FY98: \$49,000 | Total: \$49,000 | |
| <i>Prin. Invest.:</i> V K VICTOR, S KOSCHEYEV | | | |
| <i>Tech. Officer:</i> JSC/RTREVINO | | | |
| <i>CASE Category:</i> 54 – ENVIRONMENTAL BIOLOGY | | | |
| NAGW 2004 | UNIV OF MINNESOTA | 6418 | |
| STUDIES OF ULTRA HEAVY COSMIC RAY NUCLEI | | | |
| 05/29/1990 – 09/30/1997 | FY98: \$0 | Total: \$650,944 | |
| <i>Prin. Invest.:</i> C J WADDINGTON | | | |
| <i>Tech. Officer:</i> HQ/W V JONES, HQ/J C LING | | | |
| <i>CASE Category:</i> 13 – PHYSICS | | | |
| NAGW 2653 | UNIV OF MINNESOTA | 6419 | |
| STUDY OF TIME-DEPENDENT MAGNETOSPHERE/IONOSPHERE COUPLING ON INTERMEDIATE AND SMALL SCALES | | | |
| 07/15/1991 – 04/30/1998 | FY98: \$0 | Total: \$361,192 | |
| <i>Prin. Invest.:</i> R L LYSACK | | | |
| <i>Tech. Officer:</i> HQ/M M MELLOTT, HQ/J D BOHLIN | | | |
| <i>CASE Category:</i> 11 – ASTRONOMY | | | |
| NAGW 3102 | UNIV OF MINNESOTA | 6420 | |
| PHYSICAL PROPERTIES OF PARTIALLY MOLTEN AMMONIA WATER ICE PERMEABILITY AND RHEOLOGY | | | |
| 06/17/1992 – 03/31/1997 | FY98: \$0 | Total: \$170,009 | |
| <i>Prin. Invest.:</i> D L KOHISTEDT | | | |
| <i>Tech. Officer:</i> HQ/J M BOYCE | | | |
| <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE | | | |
| NAGW 3324 | UNIV OF MINNESOTA | 6421 | |
| THE CONDENSATE FRACTION IN SUPERFLUID HELIUM DROPLETS | | | |
| 01/13/1993 – 03/31/1998 | FY98: \$0 | Total: \$270,000 | |
| <i>Prin. Invest.:</i> J W HALEY | | | |
| <i>Tech. Officer:</i> HQ/C RAY | | | |
| <i>CASE Category:</i> 13 – PHYSICS | | | |
| NAGW 3336 | UNIV OF MINNESOTA | 6422 | |
| RARE GAS AND NITROGEN STUDIES ON LUNAR, METEORITIC , AND SELECTED TERRESTRIAL MATERIALS | | | |
| 01/13/1993 – 09/30/1997 | FY98: \$0 | Total: \$459,449 | |
| <i>Prin. Invest.:</i> R O PEPIN | | | |
| <i>Tech. Officer:</i> HQ/H C BRINTON | | | |
| <i>CASE Category:</i> 13 – PHYSICS | | | |

NAGW 3751 UNIV OF MINNESOTA **6423**
AN EXPERIMENTAL STUDY OF ATMOSPHERIC HOMOGENEOUS NUCLEATION
 09/23/1993 - 09/30/1997 FY98: \$0 Total: \$198,890
Prin. Invest.: P M MCMURRY
Tech. Officer: HQ/J A KAYE, HQ/A C JANETOS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4216 UNIV OF MINNESOTA **6424**
STUDY OF HIGH TIME RESOLUTION ELECTRIC AND MAGNETIC FIELDS
 11/17/1994 - 08/31/1997 FY98: \$0 Total: \$186,100
Prin. Invest.: J R WYGANT
Tech. Officer: HQ/M M MELLOTT, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4794 UNIV OF MINNESOTA **6425**
THERMOREGULATION & HEAT EXCHANGE IN NONUNIFORM THERMAL ENVIRONMENT DURING SIMULATED EXTENDED EVA
 09/22/1995 - 02/28/1997 FY98: \$0 Total: \$251,704
Prin. Invest.: V S KOSCHEYEV
Tech. Officer: HQ/J STOKLOSA
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4825 UNIV OF MINNESOTA **6426**
CONSTRUCTION AND OPERATION OF 1-5 MICRON ARRAY CAMERA
 10/17/1995 - 06/30/1997 FY98: \$0 Total: \$25,000
Prin. Invest.: R D GEHRZ
Tech. Officer: HQ/L J CAROFF, HQ/L J CAROFF
CASE Category: 11 - ASTRONOMY

NAS 5 32454 UNIV OF MINNESOTA **6427**
MAGNETIC MASS SPECTROMETERS
 03/04/1993 - 12/31/1996 FY98: \$0 Total: \$858,500
Prin. Invest.: K MAUERSBERGER
Tech. Officer: GSFC/S BENNER
CASE Category: 13 - PHYSICS

NAS 5 32670 UNIV OF MINNESOTA **6428**
INCORPORATING THE APS CATALOG OF THE POSSIBLE IMAGE ARCHIVE IN ADS
 08/08/1994 - 09/30/1997 FY98: \$0 Total: \$172,888
Prin. Invest.: R HUMPHREYS
Tech. Officer: GSFC/D WEST
CASE Category: 42 - AERONAUTICAL ENGR

NAS 5 32994 UNIV OF MINNESOTA **6429**
SCIENTIFIC AND TECHNICAL SUPPORT FOR THE UNIFIED RADIO AND PLASMA WAVE INVESTIGATION
 02/08/1996 - 12/31/1998 FY98: \$158,822 Total: \$343,258
Prin. Invest.: K GOETZ, P J KELLOGG
Tech. Officer: GSFC/R J MACDOWELL
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 1 247 UNIV OF MINNESOTA **6430**
ROBUST SYSTEM IDENTIFICATION FOR CONTROL MY 1/3
 12/09/1996 - 12/08/1998 FY98: \$1 Total: \$49,997
Prin. Invest.: G J BALAS
Tech. Officer: LARC/K B LIM
CASE Category: 42 - AERONAUTICAL ENGR

NCC 1 311 UNIV OF MINNESOTA **6431**
IMPLEMENTATION OF IMPROVED NANOMETER AEROSOL SIZE ANALYZER (NANO-ASA) FOR NEAR-FIELD FLT EXPERIMENTS
 07/23/1998 - 07/14/1999 FY98: \$40,550 Total: \$40,550
Prin. Invest.: D F UI, B E ANDERSON, D B KITTELSON
Tech. Officer: LARC/W L GROSE, LARC/R S ECKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 809 UNIV OF MINNESOTA **6432**
OPTIMAL TAKE OFF PROCEDURES FOR A CATEGORY A HELICOPTERS
 07/08/1993 - 02/28/1999 FY98: \$61,083 Total: \$298,108
Prin. Invest.: Y Z HAO
Tech. Officer: AFRC/R T CHEN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 868 UNIV OF MINNESOTA **6433**
STUDIES
 07/11/1994 - 09/04/1997 FY98: \$0 Total: \$233,177
Prin. Invest.: Y Z HAO
Tech. Officer: ARDC/R A SLATTERY, ARDC/H CHENG
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 990 UNIV OF MINNESOTA **6434**
AIRCRAFT SCHEDULING & CONFLICT RESOLUTION IN ATM
 04/29/1997 - 01/31/1999 FY98: \$52,000 Total: \$151,493
Prin. Invest.: Y Z HAO
Tech. Officer: ARDC/T J DAVIS, ARDC/J E ROBINSON, III
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5221 UNIV OF MINNESOTA **6435**
THE EFFECT OF SWIRL ON TURBULENT STRUCTURES IN SUPERSONIC JETS
 06/11/1997 - 12/31/1997 FY98: \$0 Total: \$22,416
Prin. Invest.: T S LUNDGREN
Tech. Officer: ARDC/K SHARIFF
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5268 UNIV OF MINNESOTA **6436**
LOAD BALANCING ON THE INFORMATION POWER GRID
 05/20/1998 - 09/30/1998 FY98: \$40,000 Total: \$40,000
Prin. Invest.: V KL MAR
Tech. Officer: ARDC/S SAINI
CASE Category: 42 - COMPUTER SCIENCE

NCC 5 316 UNIV OF MINNESOTA **6437**
INSTITUTIONALIZING MTPE DATA FOR LAND & ENVIRONMENTAL MANAGEMENT
 04/11/1998 - 02/21/2001 FY98: \$160,000 Total: \$160,000
Prin. Invest.: T BU RIK
Tech. Officer: GSFC/A TUYAHOV
CASE Category: 19 - MULTI INTERDISCIPL, OTHER

NGT 30320 UNIV OF MINNESOTA **6438**
GLOBAL CHANGE: FELLOWSHIP
 08/31/1995 - 12/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: M B C AVIS
Tech. Officer: HQ/C ASRAR
CASE Category: 33 - ENVIRONMENTAL SCI, OTHER

NGT 30352 UNIV OF MINNESOTA **6439**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/06/1995 – 09/30/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: M PERSON
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 40027 UNIV OF MINNESOTA **6440**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA M
 04/03/1991 – 02/28/1998 FY98: \$0 Total: \$1,144,000
Prin. Invest.: P W WEIBLER
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 51296 UNIV OF MINNESOTA **6441**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/28/1994 – 06/30/1997 FY98: -\$1,921 Total: \$64,079
Prin. Invest.: R D GEHRZ
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 – ASTRONOMY

NGT 51334 UNIV OF MINNESOTA **6442**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 – 09/14/1997 FY98: -\$2,868 Total: \$63,132
Prin. Invest.: E D SKILLMAN
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 – ASTRONOMY

NGT 51359 UNIV OF MINNESOTA **6443**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/22/1994 – 06/30/1997 FY98: -\$79 Total: \$65,921
Prin. Invest.: J W HALLEY
Tech. Officer: HQ/GA LESANE
CASE Category: 13 – PHYSICS

NGT 5 8 UNIV OF MINNESOTA **6444**
A SYSTEMATIC STUDY OF X-RAY SYNCHROTRON RADIATION FROM SHELL TYPE SUPERNOVA REMNANTS
 06/26/1995 – 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: L RUDNICK
Tech. Officer: GSFC/G A SOFFEN, GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NGT 5 30080 UNIV OF MINNESOTA **6445**
THE HYDROLOGIC CYCLE OF THE LOWER KANSAS RIVER BAS OF LAND-ATMOSPHERE FEEDBACKS AND POTENTIAL EFFECT
 09/11/1997 – 08/31/1999 FY98: \$0 Total: \$22,000
Prin. Invest.: M PERSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30109 UNIV OF MINNESOTA **6446**
FAST-GEOTAIL CORRELATIVE STUDIES OF MAGNETOSPHERE-IONOSPHERE COUPLING
 05/11/1998 – 07/31/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: C CATTELL/SIGSBEE
Tech. Officer: GSFC/D EVANS
CASE Category: 11 – ASTRONOMY

NGT 5 30111 UNIV OF MINNESOTA **6447**
THE IMPACTS OF A SALT CEDAR (TAMARIX RAMOSISSIMA) INVASION ON COMMUNITIES, ECOSYSTEM PROCESSES
 08/28/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: S NAEEM
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30115 UNIV OF MINNESOTA **6448**
ECOSYSTEM RESPONSE TO CLIMATIC CHANGE: A COMPARATIVE STUDY OF FOREST-LAKE ECOSYSTEMS ON DIFFERENT SITES
 10/01/1997 – 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: M DAVIS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 40040 UNIV OF MINNESOTA **6449**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 01/24/1997 – 02/28/1999 FY98: \$256,250 Total: \$461,250
Prin. Invest.: W L GARRARD
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50091 UNIV OF MINNESOTA **6450**
STUDY OF LONG RANGE QUANTUM COHERENCE IN THE BOSE-LIQUID HELIUM FOUR.
 09/05/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: HALLEY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50104 UNIV OF MINNESOTA **6451**
SPATIO-TEMPORAL ORGANIZATION OF REMOTELY SENSED RADAR DYNAMIC SCALING AND DEVELOPMENT OF FRAMEWORK FOR
 09/06/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: G POURFOULA
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50123 UNIV OF MINNESOTA **6452**
THE DYNAMICAL EVOLUTION OF YOUNG SUPERNOVA REMNANT
 09/10/1997 – 09/14/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: L RUDNICK
Tech. Officer: HQ/A NURRIDIN
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NGT 5 50186 UNIV OF MINNESOTA **6453**
THREE DIMENSIONAL SIMULATION OF KELVIN-HELMHOLTZ INSTABILITY WITH MAGNETIC SHEAR
 05/27/1998 – 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R L LYSACK
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 – PHYSICS

NGT 5 50208 UNIV OF MINNESOTA **6454**
THEORETICAL STUDIES OF DISSIPATION IN THE PROPOSED CONDENSATE EXPERIMENT IN HELIUM FOUR
 07/10/1998 – 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J W HALLEY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 – PHYSICS

NSG 5088 UNIV OF MINNESOTA **6455**
RESEARCH OF MAGNETOSPHERIC PHYSICS PHENOMENA USING SOUND ROCKETS
 11/01/1975 - 06/30/1999 FY98: \$0 Total: \$2,607,963
Prin. Invest.: J R WINCKLER
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NCC 9 67 WINONA STATE UNIVERSITY **6456**
RELIABILITY MODELING WITH CASUAL VARIABLES ATTRIBUTABLE WITHIN THE LOGISTIC REGRESSION MODEL
 02/23/1998 - 01/03/1999 FY98: \$55,000 Total: \$55,000
Prin. Invest.: R D JARVINEN
Tech. Officer: JSC/R P HEYDORN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

MISSISSIPPI

NAG13 98005 ALCORN STATE UNIVERSITY **6457**
THERMAL-HYDRAULIC MATERIAL PRE-CONSTRUCTION ANALYSIS OF THE NEW SSME TEST DIFFUSER
 03/31/1998 - 03/30/1999 FY98: \$94,392 Total: \$94,392
Prin. Invest.: S ACEIL
Tech. Officer: JSC/B ST. CYR
CASE Category: 49 - ENGINEERING, OTHER

NAG13 98010 ALCORN STATE UNIVERSITY **6458**
STRENGTHENING PRE-SERVICE AND IN-SERVICE TEACHER EDUCATION IN MATHEMATICS, SCIENCE & TECHNOLOGY
 06/12/1998 - 06/10/2001 FY98: \$188,470 Total: \$188,470
Prin. Invest.: D ADDIE, J RUSSELL, W HUMPHRY
Tech. Officer: JSC/N SULLIVAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6086 JACKSON STATE UNIVERSITY **6459**
PACE/MSET AWARD
 08/28/1997 - 07/31/1998 FY98: \$0 Total: \$99,985
Prin. Invest.: A MOHAMED
Tech. Officer: HQ/M STOUTSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6209 JACKSON STATE UNIVERSITY **6460**
BOUNDARY LAYER PROCESSES AFFECTING TROPICAL CYCLONES
 08/06/1997 - 07/31/1999 FY98: \$25,000 Total: \$125,000
Prin. Invest.: P FITZPATRICK
Tech. Officer: GSFC/R ADLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1316 JACKSON STATE UNIVERSITY **6461**
JOVE RESEARCH
 01/22/1997 - 08/31/1999 FY98: \$31,000 Total: \$75,000
Prin. Invest.: R S REDDY
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 990 JACKSON STATE UNIVERSITY **6462**
JSU INTEGRATED ATECHNOLOGY PAROGRAM
 02/26/1998 - 06/20/1998 FY98: \$25,000 Total: \$25,000
Prin. Invest.: S BOLLS
Tech. Officer: KSC/D G SICKOREZ
CASE Category: 41 - AERONAUTICAL ENGR

NAGW 4487 JACKSON STATE UNIVERSITY **6463**
PRE COLLEGE AWARDS FOR EXCELLENCE IN MATHEMATICS S ICENCE ENGINEERING AND TECHNOLOGY
 05/10/1995 - 07/31/1997 FY98: \$0 Total: \$199,970
Prin. Invest.: A MOHAMED
Tech. Officer: HC/B L WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 32 JACKSON STATE UNIVERSITY **6464**
REMOTELY SENSED SPATIAL DATA AND PROPULSION DATA
 12/22/1994 - 03/31/1998 FY98: -\$4,852 Total: \$219,031
Prin. Invest.: W C BROWN
Tech. Officer: SSC/A T JOYCE
CASE Category: 22 - COMPUTER SCIENCE

NAG13 49 JACKSON STATE UNIVERSITY **6465**
JSU-NASA PARTNERSHIP FOR RESEARCH AND EDUCATIONAL PROGRAMS
 06/23/1997 - 06/22/1999 FY98: \$112,000 Total: \$292,000
Prin. Invest.: P B TCHOUNWOU
Tech. Officer: SSC/A T JOYCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 98007 JACKSON STATE UNIVERSITY **6466**
PACE/MSET SA IE
 06/10/1998 - 06/19/2001 FY98: \$99,970 Total: \$99,970
Prin. Invest.: A K MOHAMED
Tech. Officer: SSC/A JOYCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 3 437 JACKSON STATE UNIVERSITY **6467**
SYSTEM DEFINITION AND OBJECT ORIENTED PROGRAMMING FOR A ROCKET ENGINE NUMERICAL SIMULATION
 10/23/1995 - 01/11/1999 FY98: \$85,312 Total: \$284,267
Prin. Invest.: D N BHALLA
Tech. Officer: LEIC/D E NOGA, LERC/K J DAVIDIAN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 30273 JACKSON STATE UNIVERSITY **6468**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/10/1994 - 08/1/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: B LI CAS
Tech. Officer: HQ E LUCIER, HQ/G ASRAR
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 90067 JACKSON STATE UNIVERSITY **6469**
YOUNG SCIENT ST PROGRAM
 04/17/1997 - 06/30/1999 FY98: \$117,855 Total: \$213,803
Prin. Invest.: R SULLIVAN
Tech. Officer: GS/C/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT13 52713 JACKSON STATE UNIVERSITY **6470**
GRADUATE STUDENT PROGRAM SAME
 08/15/1997 - 08/15/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: C HARPER
Tech. Officer: SSC/A R JOYCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1571 MISSISSIPPI STATE UNIVERSITY **6471**
WING DESIGN FOR A CIVIL TILTROTOR TRANSPORT AIRCRAFT
 01/25/1994 - 04/30/1998 FY98: \$7,082 Total: \$141,074
Prin. Invest.: M RAIS-ROHANI
Tech. Officer: LARC/D J BAKER, LARC/J H STARNES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1716 MISSISSIPPI STATE UNIVERSITY **6472**
MANUFACTURING AND COST CONSIDERATIONS IN MULTIDISCIPLINARY AIRCRAFT DESIGN
 04/05/1995 - 09/30/1997 FY98: \$0 Total: \$122,379
Prin. Invest.: M RAIS-ROHANI
Tech. Officer: LARC/E B DEAN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1779 MISSISSIPPI STATE UNIVERSITY **6473**
MULTIGRID SOLUTION OF THE THREE-DIMENSIONAL INCOMPRESSIBLE NAVIER-STOKES EQUATIONS ON
 11/13/1995 - 11/12/1997 FY98: -\$1,189 Total: \$78,812
Prin. Invest.: D L WHITFIELD
Tech. Officer: LARC/W K ANDERSON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1990 MISSISSIPPI STATE UNIVERSITY **6474**
GRID GENERATION AND NUMERICAL SOLUTION OF THE NAVIER-STOKES EQUATIONS OF UNSTRUCTUREDGRIDS
 01/12/1998 - 01/11/1999 FY98: \$125,000 Total: \$125,000
Prin. Invest.: D L WHITFIELD, D L MARCUM
Tech. Officer: LARC/J L THOMAS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2003 MISSISSIPPI STATE UNIVERSITY **6475**
A STRIP-YIELD MODEL FOR PREDICTING THE GROWTH OF PART-THROUGH CRACKS UNDER CYCLIC LOADING
 02/04/1998 - 02/03/1999 FY98: \$64,901 Total: \$64,901
Prin. Invest.: S R DANIEWCZ
Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU
CASE Category: 46 - MECHANICAL ENGR

NAG 1 2038 MISSISSIPPI STATE UNIVERSITY **6476**
INVESTIGATION OF ROBUST DESIGN CONCEPTS FOR COMPO- SITE ROTORCRAFT FUSELAGE STRUCTURES
 03/26/1998 - 12/31/1998 FY98: \$43,150 Total: \$43,150
Prin. Invest.: M RAIS-ROHANI
Tech. Officer: LARC/D J BAKER, LARC/J H STARNES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1144 MISSISSIPPI STATE UNIVERSITY **6477**
PHYSICS-BASED MANEUVERING PREDICTION OF COMMUTER AIRCRAFT
 07/22/1997 - 07/31/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: D L WHITFIELD, L K TAYLOR, W R BRILEY
Tech. Officer: ARC/S S YOON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1211 MISSISSIPPI STATE UNIVERSITY **6478**
TWO LEVEL MIDDLEWARE ON QOS-BASED NETWORK IN SUPPORT OF NASA-AMES IPG
 05/07/1998 - 09/30/1998 FY98: \$150,000 Total: \$150,000
Prin. Invest.: S SKJELLUM
Tech. Officer: ARC/S SAINI
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1232 MISSISSIPPI STATE UNIVERSITY **6479**
PHYSICS-BASED MANEUVERING PREDICTION OF TILT ROTOR AIRCRAFT
 06/24/1998 - 07/31/1999 FY98: \$299,388 Total: \$299,388
Prin. Invest.: D L WHITFIELD, L K TAYLOR, W R BRILEY
Tech. Officer: ARC/S S YOON, ARC/W F FREIREISEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1699 MISSISSIPPI STATE UNIVERSITY **6480**
COMPUTATIONAL FLUID DYNAMICS OF ROTATING MACHINERY USING TRUBO
 01/23/1995 - 11/20/1998 FY98: \$100,000 Total: \$419,999
Prin. Invest.: J M JANUS, D WHITFIELD, T MSWAFFORD
Tech. Officer: LERC/D L HUFF
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1712 MISSISSIPPI STATE UNIVERSITY **6481**
COMPUTATIONS OF ROTOR-STATOR INTERACTIONS USING THE NAVIER-STOKES EQUATION
 02/21/1995 - 02/06/1999 FY98: \$100,000 Total: \$345,000
Prin. Invest.: D L WHITFIELD
Tech. Officer: LERC/E R MCFARLAND
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2073 MISSISSIPPI STATE UNIVERSITY **6482**
HIGH-VOLTAGE SIC POWER DEVICE FIELD TERMINATIONS HIGH-VOLTAGE SIC POWER DEVICE FIELD TERMINATIONS
 09/05/1997 - 08/11/1998 FY98: \$0 Total: \$4,953
Prin. Invest.: S E SADDOW, M S MAZZOLA
Tech. Officer: LERC/D J LARKIN
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2176 MISSISSIPPI STATE UNIVERSITY **6483**
DEVELOPMENT OF A PARALLEL TURBOMACHINERY FLOW SOLVER
 06/22/1998 - 05/20/1999 FY98: \$31,000 Total: \$31,000
Prin. Invest.: W R BRILEY
Tech. Officer: LERC/E R MCFARLAND
CASE Category: 46 - MECHANICAL ENGR

NAG 5 6519 MISSISSIPPI STATE UNIVERSITY **6484**
SOUTHERN REMOTE SENSING RESEARCH AND TRAINING CENTER
 10/24/1997 - 09/30/1999 FY98: \$440,656 Total: \$440,656
Prin. Invest.: D L EVANS
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 965 MISSISSIPPI STATE UNIVERSITY **6485**
PROTEIN RESEARCH
 06/15/1993 - 06/30/1998 FY98: \$0 Total: \$440,000
Prin. Invest.: W WILSON
Tech. Officer: MSFC/D CARTER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1158 MISSISSIPPI STATE UNIVERSITY **6486**
FUNDING PREDICTION PROTEIN CRYSTALLIZATION
 07/21/1995 - 08/15/1999 FY98: \$91,500 Total: \$300,000
Prin. Invest.: W WILSON
Tech. Officer: MSFC/D C CARTER, MSFC/T Y MILLER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

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| NAG 9 983 MISSISSIPPI STATE UNIVERSITY 6487 MONITORING 10 MICRON SIZED BUBBLE IN MODEL TISSUE 01/09/1998 – 01/11/1999 FY98: \$30,000 Total: \$30,000 Prin. Invest.: J GILBERT Tech. Officer: JSC/M POWELL CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR) | NAGW 4152 TOUGALOO COLLEGE 6495 NASA SUMMER INTERN PILOT PROGRAM 05/09/1995 – 03/31/1997 FY98: \$0 Total: \$78,286 Prin. Invest.: G V BRUNO Tech. Officer: HC/G A LASANE CASE Category: 12 – CHEMISTRY |
| NAG 9 997 MISSISSIPPI STATE UNIVERSITY 6488 PRECISION OPERATIONAL AMPLIFIER DESIGN IN 0.5 MICRON CMOS TECHNOLOGY 03/26/1998 – 09/30/1999 FY98: \$19,900 Total: \$19,900 Prin. Invest.: B J BLALOCK Tech. Officer: JSC/R L SHULER CASE Category: 45 – ELECTRICAL ENGR | NAG 2 1204 UNIVERSITY OF MISSISSIPPI – MEDICAL CENTER 6496 OTOLITH-CANAL CONVERGENCE IN VESTIBULAR NUCLEI NEURONS 04/06/1998 – 09/30/1998 FY98: \$69,735 Total: \$69,735 Prin. Invest.: J D DICKMAN Tech. Officer: AR/M M AVERNER, ARC/R D MACELROY CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR) |
| NAS13 564 MISSISSIPPI STATE UNIVERSITY 6489 RD TASKS IN SUPPORT OF NASA AND RESIDENT AGENCIES \$2,500,000.00 03/18/1993 – 09/30/1999 FY98: \$2,592,141 Total: \$11,307,093 Prin. Invest.: S BAILEY, J BIVENS Tech. Officer: SSC/P REIDER CASE Category: 99 – MULTI INTERDISCIPL, OTHER | NAG 5 3884 UNIVERSITY OF MISSISSIPPI – MEDICAL CENTER 6497 ADAPTIVE VISUAL VESTIBULAR MECHANISMS AND GRAVITY 03/04/1997 – 02/8/1999 FY98: \$99,967 Total: \$164,270 Prin. Invest.: D ANGELAKI, NONE Tech. Officer: GS/C/V SCHNEIDER CASE Category: 59 – LIFE SCIENCE, OTHER |
| NAS13 98033 MISSISSIPPI STATE UNIVERSITY 6490 RESEARCH & DEVELOPMENT NASA AND RESIDENT AGENCIES 03/23/1998 – 03/22/2003 FY98: \$3,028,339 Total: \$3,028,339 Prin. Invest.: R ROBERTSON, G RAYBORN, D WIESENBERG Tech. Officer: SSC/D POWE CASE Category: 99 – MULTI INTERDISCIPL, OTHER | NAG 5 7671 UNIVERSITY OF MISSISSIPPI – MEDICAL CENTER 6498 FUNDING FOR THE UTILITY OF LOW COST THERMAL SENSORS IN ARCHAEOLOGICAL RESEARCH' (SENH98-0125) 09/01/1998 – 02/23/1999 FY98: \$25,000 Total: \$25,000 Prin. Invest.: J K JOHNSON Tech. Officer: GS/C/H V FREY CASE Category: 42 – GEOLOGICAL SCIENCE |
| NCC 1 286 MISSISSIPPI STATE UNIVERSITY 6491 AERO-STRUCTURAL INTERACTION, ANALYSIS, AND SHAPE SENSITIVITY 04/17/1998 – 12/31/1998 FY98: \$60,000 Total: \$60,000 Prin. Invest.: J C NEWMAN Tech. Officer: LARC/W K ANDERSON CASE Category: 11 – ASTRONOMY | NAGW 4377 UNIVERSITY OF MISSISSIPPI – MEDICAL CENTER 6499 ADAPTIVE VISUAL-VESTIBULAR MECHANISMS AND GRAVITY 03/31/1995 – 04/13/1998 FY98: -\$3,880 Total: \$233,354 Prin. Invest.: D E ANGELAKI, NONE Tech. Officer: HQ/B SULZMAN CASE Category: 59 – LIFE SCIENCE, OTHER |
| NCC 3 221 MISSISSIPPI STATE UNIVERSITY 6492 LOW-VELOCITY, OPPOSED-FLOW FLAME SPREAD IN A TRANSPORT-CONTROLLED, MICROGRAVITY ENVIRONMENT 06/19/1991 – 08/12/1999 FY98: \$0 Total: \$714,771 Prin. Invest.: R A ALTENKIRCH, S BHATTA CHARJEE Tech. Officer: LERC/J A SALZMAN, LERC/H D ROSS CASE Category: 19 – PHYSICAL SCIENCE, OTHER | NAGW 4507 UNIVERSITY OF MISSISSIPPI – MEDICAL CENTER 6500 OTOLITH CANAL CONVERGENCE IN VESTIBULAR NUCLEI NEURONS 05/19/1995 – 04/30/1998 FY98: \$0 Total: \$117,457 Prin. Invest.: J D DICKMAN Tech. Officer: HQ/T K SCOTT CASE Category: 53 – LIFE SCIENCE, OTHER |
| NAG13 51 MISSISSIPPI VALLEY STATE UNIV. 6493 INCORPORATING INFORMATION TECHNOLOGY TO ENTERPRISE ZONES AND EMPOWERMENT COMMUNITY SCHOOL SYSTEMS 06/30/1997 – 06/29/1999 FY98: \$112,000 Total: \$301,664 Prin. Invest.: S J WHITE Tech. Officer: JSC/N SULLIVAN CASE Category: 99 – MULTI INTERDISCIPL, OTHER | NGT 40028 UNIVERSITY OF MISSISSIPPI – UNIVERSITY 6501 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM 05/21/1991 – 02/28/1998 FY98: -\$77,546 Total: \$1,101,404 Prin. Invest.: M R DINGERSON Tech. Officer: HQ/E T SCHWARTZ CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NAG13 98004 MISSISSIPPI VALLEY STATE UNIV. 6494 RESPONSE OF A LEAF AND CANOPY SPECTRAL REFLECTANCE TO DROUGHT STRESS IN SOYBEANS 03/31/1998 – 03/30/1999 FY98: \$99,938 Total: \$99,938 Prin. Invest.: R BAHADUR Tech. Officer: JSC/G CARTER CASE Category: 55 – AGRICULTURE | NGT 5 40032 UNIVERSITY OF MISSISSIPPI – UNIVERSITY 6502 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM. 02/13/1997 – 02/28/1999 FY98: \$256,250 Total: \$461,250 Prin. Invest.: M R DINGERSON Tech. Officer: GSFC/L KEFFER CASE Category: 99 – MULTI INTERDISCIPL, OTHER |

NGT13 52705 UNIVERSITY OF MISSISSIPPI – UNIVERSITY **6503**
SURFACE EFFECTS OF THE SOLID FUEL GRAIN ON COM- BUSTION
INSTABILITY IN THE HYBRID ROCKET ENGINE
 05/23/1996 – 08/01/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: P SUKANEK
Tech. Officer: SSC/A JOYCE
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 4570 UNIVERSITY OF SOUTHERN MISSISSIPPI **6504**
OPTICAL ASSESSMENT OF BIOGEOCHEMICAL PROPERTIES IN APPLICA-
TION TO MULTI-SPECTRAL AND HIGH RESOLUTION
 07/23/1997 – 07/14/1999 FY98: \$87,646 Total: \$184,379
Prin. Invest.: S LOHRENZ
Tech. Officer: GSFC/J YODER
CASE Category: 33 – OCEANOGRAPHY

NAG 8 1466 UNIVERSITY OF SOUTHERN MISSISSIPPI **6505**
FRONTAL POLYMERIZATION IN MICROGRAVITY
 02/10/1998 – 01/31/2002 FY98: \$96,250 Total: \$96,250
Prin. Invest.: J A POJMAN
Tech. Officer: MSFC/W S SPEARMAN
CASE Category: 13 – PHYSICS

NAG13 28 UNIVERSITY OF SOUTHERN MISSISSIPPI **6506**
EVALUATION OF POLYMER DISPERSED LIQUID CRYSTAL DEVICES
 12/17/1993 – 10/31/1997 FY98: -\$8,887 Total: \$209,383
Prin. Invest.: J WHITEHEAD
Tech. Officer: SSC/THURMAN, SSC/JOYCE
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NGT 51261 UNIVERSITY OF SOUTHERN MISSISSIPPI **6507**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 – 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: L J MATHIAS
Tech. Officer: HQ/G LESANE
CASE Category: 43 – CHEMICAL ENGR

NGT 70394 UNIVERSITY OF SOUTHERN MISSISSIPPI **6508**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 08/30/1994 – 09/30/1997 FY98: \$0 Total: \$132,000
Prin. Invest.: G H RAYBORN
Tech. Officer: HQ/D K RUSSELL
CASE Category: 22 – COMPUTER SCIENCE

NGT 8 52810 UNIVERSITY OF SOUTHERN MISSISSIPPI **6509**
RESEARCH
 09/07/1995 – 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: D Y LOCHHEAD
Tech. Officer: MSFC/F SIX
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT13 52716 UNIVERSITY OF SOUTHERN MISSISSIPPI **6510**
1998 NASA/ASEE SUMMER FACULTY FELLOWSHIP PROGRAM AT SSC
 04/07/1998 – 04/06/1999 FY98: \$200,000 Total: \$200,000
Prin. Invest.: J MILLER
Tech. Officer: SSC/A JOYCE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

MISSOURI

NAG 1 1983 SAINT LOUIS UNIVERSITY **6511**
DEV OF A PROBABILITY DISTRIBUTION FUNCTION (PDF) BASED TRAN-
SITION MODEL
 12/17/1997 – 12/31/1998 FY98: \$23,599 Total: \$23,599
Prin. Invest.: W D THACKER
Tech. Officer: LARC/T B GATSKI
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 4538 SAINT LOUIS UNIVERSITY **6512**
SKELETAL COLLAGEN TURNOVER BY THE OSTEOBLAST
 05/06/1997 – 02/28/1999 FY98: \$0 Total: \$100,450
Prin. Invest.: N PARTRIDGE
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 4549 SAINT LOUIS UNIVERSITY **6513**
SKELETAL COLLAGEN TURNOVER BY THE OSTEOBLAST
 07/18/1995 – 02/28/1998 FY98: \$0 Total: \$199,253
Prin. Invest.: N I PATRIDGE
Tech. Officer: HQ/T K SCOTT
CASE Category: 59 – LIFE SCIENCE, OTHER

NCC 2 884 SAINT LOUIS UNIVERSITY **6514**
EFFECT OF MICROGRAVITY ON BONE DEVELOPMENT
 02/08/1995 – 12/31/1997 FY98: \$0 Total: \$206,766
Prin. Invest.: N C PARTRIDGE
Tech. Officer: ARC/D A REISS-BUBENHEIM, ARC/C M WINGET
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NGT 5 10 SAINT LOUIS UNIVERSITY **6515**
EVALUATION OF MODEL SIMULATED REFLECTIVITY USING RADAR ANALY-
SIS OF TOGA CONVECTIVE SYSTEMS
 06/26/1995 – 06/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: R PASKEN
Tech. Officer: GSFC/G A SOFFEN, GSFC/W TAO
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 50047 SAINT LOUIS UNIVERSITY **6516**
CHARACTERIZATION OF AN OSTEOBLASTIC SCAVENGER RECE
 07/17/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: N PARTRIDGE
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50201 SAINT LOUIS UNIVERSITY **6517**
TRANSCRIPTIONAL REGULATION OF DIFFERENTIATING OSTEOBAST
 07/02/1998 – 06/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: N C PARTRIDGE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 993 SOUTHEAST MISSOURI STATE UNIVERSITY **6518**
JOVE
 11/26/1993 – 08/31/1998 FY98: \$0 Total: \$154,751
Prin. Invest.: D PROBET, G CWICK, J GONG
Tech. Officer: MSFC/F SIX
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

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| <p>NAG 1 1790 UNIVERSITY OF MISSOURI - COLUMBIA 6519 THERMODYNAMIC AND STRUCTURAL PROPERTIES OF IMIDE MODEL COMPOUNDS FROM EXPERIMENT AND SIMULATION 01/24/1996 - 01/23/1998 FY98: -\$20,854 Total: \$44,156 <i>Prin. Invest.:</i> G D SMITH, R A ORWOLL <i>Tech. Officer:</i> LARC/J A HINKLEY, LARC/T S GATES <i>CASE Category:</i> 47 - METAL & MATERIALS ENGR</p> | <p>NAG 5 6714 UNIVERSITY OF MISSOURI - COLUMBIA 6527 LONG TERM ELEVATION CHANGE OF THE GREENLAND ICE SHEET FROM SATELLITE RADAR ALTIMETRY 12/10/1997 - 06/30/1999 FY98: \$186,093 Total: \$186,093 <i>Prin. Invest.:</i> C H DAVIS <i>Tech. Officer:</i> GSFC/S GOGINENI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 3 1731 UNIVERSITY OF MISSOURI - COLUMBIA 6520 TRAJECTORY OPTIMIZATION OF AN INTERSTELLAR MISSION USING SOLAR ELECTRIC PROPULSION 04/10/1995 - 04/09/1997 FY98: \$0 Total: \$17,890 <i>Prin. Invest.:</i> C A KLUEVER <i>Tech. Officer:</i> LERC/J M HICKMAN <i>CASE Category:</i> 42 - ASTRONAUTICAL ENGR</p> | <p>NAG 5 6772 UNIVERSITY OF MISSOURI - COLUMBIA 6528 INVESTIGATION OF A LARGE, COMPLETE SAMPLE OF GALAXY GROUPS USING THE ROSAT ALL-SKY SURVEY 01/22/1998 - 01/31/1999 FY98: \$47,137 Total: \$47,137 <i>Prin. Invest.:</i> J B JRNS <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> GSFC/D WEST <i>CASE Category:</i> 11 - ASTRONOMY</p> |
| <p>NAG 5 3778 UNIVERSITY OF MISSOURI - COLUMBIA 6521 ICE SHEET ELEVATION CHANGE STUDIES USING IMPROVED 02/12/1997 - 12/31/1998 FY98: \$0 Total: \$87,722 <i>Prin. Invest.:</i> C A KLUEVER <i>Tech. Officer:</i> GSFC/R H THOMAS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> | <p>NAG 5 6837 UNIVERSITY OF MISSOURI - COLUMBIA 6529 GREENLAND ICE SHEET ELEVATION CHANGE STUDIES USING RADAR ALTIMETRY WITH IMPROVED ORBIT ERROR ANALYSIS 01/08/1998 - 12/31/1998 FY98: \$73,793 Total: \$73,793 <i>Prin. Invest.:</i> D K KLUEVER <i>Tech. Officer:</i> GSFC/S GOGINENI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 5 3900 UNIVERSITY OF MISSOURI - COLUMBIA 6522 INTERCOMPARISON, VISUALIZATION AND ANALYSIS TESTBED ASSIMILATED DATA SETS AND SATELLITE DATA. 03/03/1997 - 02/28/1999 FY98: \$137,332 Total: \$286,899 <i>Prin. Invest.:</i> K PALANIAPPAN <i>Tech. Officer:</i> GSFC/A NEGRI <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE</p> | <p>NAG 5 6968 UNIVERSITY OF MISSOURI - COLUMBIA 6530 UNIVERSITY OF MISSOURI INTERDISCIPLINARY REMOTE SENSING PROGRAM: DEVELOPMENT AND DELIVERY OF MULTISOURCE 03/10/1998 - 02/28/1999 FY98: \$90,610 Total: \$90,610 <i>Prin. Invest.:</i> K P PALANIAPPAN, NONE <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 5 4607 UNIVERSITY OF MISSOURI - COLUMBIA 6523 VESTIBULAR ONTOGENY, ADAPTATION, AND THE EFFECTS OF LOADING IN THE RAT 05/19/1997 - 05/14/1999 FY98: \$40,667 Total: \$138,380 <i>Prin. Invest.:</i> T A JONES <i>Tech. Officer:</i> GSFC/T SCOTT <i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER</p> | <p>NAG 9 915 UNIVERSITY OF MISSOURI - COLUMBIA 6531 THERMAL MODELING FOR SPACESUIT DESIGN/CONTROL 11/06/1996 - 09/30/1998 FY98: \$60,000 Total: \$157,697 <i>Prin. Invest.:</i> S N WIR <i>Tech. Officer:</i> JSC/C LIU <i>CASE Category:</i> 42 - ASTRONAUTICAL ENGR</p> |
| <p>NAG 5 6283 UNIVERSITY OF MISSOURI - COLUMBIA 6524 INTELLIGENT VISUALIZATION OF EARTH SCIENCE DATASET STRUCTURES AND DATA COMPRESSION STRATEGIES 09/26/1997 - 07/31/1998 FY98: \$0 Total: \$170,000 <i>Prin. Invest.:</i> X ZHAUNG <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p> | <p>NAGW 4698 UNIVERSITY OF MISSOURI - COLUMBIA 6532 INTELLIGENT VISUALIZATION FOR EARTH SCIENCE DATASETS USING NOVEL DATA STRUCTURES AND DATA COMPRESSION 09/05/1995 - 09/30/1997 FY98: \$0 Total: \$315,000 <i>Prin. Invest.:</i> X ZHAUNG <i>Tech. Officer:</i> HQ G ASRAR <i>CASE Category:</i> 29 - MATH/COMPUTER SCI, OTHER</p> |
| <p>NAG 5 6685 UNIVERSITY OF MISSOURI - COLUMBIA 6525 GPS MONITORING OF STRAIN ACCUMULATION IN THE NEW MADRID SEISMIC ZONE 11/25/1997 - 11/30/1998 FY98: \$17,916 Total: \$17,916 <i>Prin. Invest.:</i> J F ENGELN <i>Tech. Officer:</i> GSFC/H FREY <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE</p> | <p>NAGW 5010 UNIVERSITY OF MISSOURI - COLUMBIA 6533 LONG TERM ELEVATION CHANGE 03/21/1996 - 12/31/1996 FY98: -\$3,030 Total: \$117,268 <i>Prin. Invest.:</i> C DAVIS <i>Tech. Officer:</i> HQ R H THOMAS, HQ/R HARRISS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 5 6698 UNIVERSITY OF MISSOURI - COLUMBIA 6526 HRI OBSERVATIONS OF DISTANT ABELL CLUSTERS 04/30/1998 - 06/30/1998 FY98: \$10,000 Total: \$10,000 <i>Prin. Invest.:</i> J O BURNS <i>Tech. Officer:</i> GSFC/R PETRE <i>CASE Category:</i> 11 - ASTRONOMY</p> | <p>NAG10 224 UNIVERSITY OF MISSOURI - COLUMBIA 6534 MICROGRAVITY EFFECTS DURING FERTILIZATION CELL DIVISION 09/16/1997 - 09/30/1998 FY98: \$0 Total: \$49,048 <i>Prin. Invest.:</i> H SCHAFFER <i>Tech. Officer:</i> KSC/W KNOTT <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)</p> |

NGT 5 50205 UNIVERSITY OF MISSOURI – COLUMBIA **6535**
VASCULAR CONTROL OF SKELETAL MUSCLE BLOOD FLOW AFTER SIMULATED MICROGRAVITY (GSRP STUDENT:
 07/09/1998 – 06/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M LAUGHLIN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 8 52850 UNIVERSITY OF MISSOURI – COLUMBIA **6536**
ROBUST GUIDANCE SCHEMES FOR LOW THRUST EARTH ORBIT
 07/27/1998 – 08/13/2000 FY98: \$22,000 Total: \$22,000
Prin. Invest.: C A KLUEVER
Tech. Officer: MSFC/J F DOWDY
CASE Category: 46 – MECHANICAL ENGR

NAG 1 1189 UNIVERSITY OF MISSOURI – ROLLA **6537**
ANALYTICAL AND COMPUTATIONAL INVESTIGATION OF SUPERSONIC COMBUSTOR FLOW FIELDS
 09/26/1990 – 09/24/1998 FY98: \$60,000 Total: \$588,308
Prin. Invest.: D W RIGGINS
Tech. Officer: LARC/C R MCCLINTON, LARC/S H STACK
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1632 UNIVERSITY OF MISSOURI – ROLLA **6538**
PARTICULATE CHARACTERIZATION OF COMMERCIAL JET ENGINE EMISSIONS AT CRUISE
 07/06/1994 – 01/05/1998 FY98: \$1 Total: \$407,403
Prin. Invest.: D E HAGEN
Tech. Officer: LARC/W R COFER, LARC/W L GROSE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 2 1099 UNIVERSITY OF MISSOURI – ROLLA **6539**
AEROSOL MEASUREMENTS FOR PROJECT SONEX USING THE UM R MASS
 01/09/1997 – 12/31/1997 FY98: \$0 Total: \$93,981
Prin. Invest.: D E HAGEN, P D WHITEFIELD
Tech. Officer: ARC/E P CONDON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 3 2109 UNIVERSITY OF MISSOURI – ROLLA **6540**
EXTENSION OF THE AFT FAN DUCT ACOUSTIC RADIATION CODES
 01/15/1998 – 01/11/1999 FY98: \$63,618 Total: \$63,618
Prin. Invest.: W EVERSMAN
Tech. Officer: LERC/E ENVIA
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2185 UNIVERSITY OF MISSOURI – ROLLA **6541**
ADVANCED EXTRACTIVE AEROSOL SAMPLING
 07/27/1998 – 04/27/1999 FY98: \$69,862 Total: \$69,862
Prin. Invest.: P D WHITEFIELD, D E HAGEN
Tech. Officer: LERC/C C WEY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2186 UNIVERSITY OF MISSOURI – ROLLA **6542**
A STUDY OF THE PRODUCTION & GROWTH OF AEROSOL AS A FUNCTION OF JET FUEL SULFUR CONTENT IN WELL DEFINED
 07/28/1998 – 04/27/1999 FY98: \$40,589 Total: \$40,589
Prin. Invest.: P D WHITEFIELD
Tech. Officer: LERC/C C WEY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 8 1465 UNIVERSITY OF MISSOURI – ROLLA **6543**
KINETICS OF NUCLEATION AND CRYSTAL GROWTH IN GLASS FORMING METALS IN MICROGRAVITY
 02/10/1998 – 01/31/2002 FY98: \$96,250 Total: \$96,250
Prin. Invest.: D E DAY, C S RAY
Tech. Officer: MSFC/J L FRAZIER
CASE Category: 13 – PHYSICS

NCC 3 343 UNIVERSITY OF MISSOURI – ROLLA **6544**
PARTICULATE EMISSIONS CHARACTERIZATION FOR HSCT RELATED TEST-SON: FLAME TUBE, ANNULAR SECTOR COMBUSTOR
 04/25/1994 – 08/22/1998 FY98: \$167,000 Total: \$845,000
Prin. Invest.: P WHITEFIELD, D HAGEN, H LILLENFELD
Tech. Officer: LERC/R W NIEDZWIECKI, LERC/K P KUNDU
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NGT 40057 UNIVERSITY OF MISSOURI – ROLLA **6545**
NATL SPACE GRANT
 04/24/1996 – 09/30/1997 FY98: \$0 Total: \$171,000
Prin. Invest.: B P SELBERG
Tech. Officer: HQ/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52150 UNIVERSITY OF MISSOURI – ROLLA **6546**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) TRANSFERRED FROM NASA HQ – NGT-51338
 07/30/1996 – 06/30/1997 FY98: -\$1 Total: \$22,000
Prin. Invest.: D PIGGIUS
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 40060 UNIVERSITY OF MISSOURI – ROLLA **6547**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.
 03/04/1997 – 02/28/1999 FY98: \$212,500 Total: \$382,500
Prin. Invest.: B P SELBERG
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 1 1656 UNIVERSITY OF MISSOURI – SAINT LOUIS **6548**
COMPUTER-AIDED POLYMER DESIGN FOR NASA'S HIGH-SPEED CIVILIAN TRANSPORT
 11/18/1994 – 01/31/1999 FY98: \$0 Total: \$150,375
Prin. Invest.: W J WELSH
Tech. Officer: LARC/J A HINKLEY, LARC/T S GATES
CASE Category: 12 – CHEMISTRY

NAG 5 6091 UNIVERSITY OF MISSOURI – SAINT LOUIS **6549**
METHANE ABSORPTION SPECTROSCOPY IN THE 700-1000NM RANGE: SURE DEPENDENCES & DETERMINATIONS OF THE INTER-BA
 08/26/1997 – 06/14/1999 FY98: \$18,750 Total: \$68,750
Prin. Invest.: D O'BRIEN
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAGW 5243 UNIVERSITY OF MISSOURI – KANSAS CITY **6550**
RESEARCH ENTITLED LONG TERM ELEVATION CHANGE OF THE GREENLAND ICE SHEETS FROM STELLAR RADAR
 11/21/1996 – 12/31/1997 FY98: \$0 Total: \$166,110
Prin. Invest.: C H DAVIS
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

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| NGT 3 52303 UNIVERSITY OF MISSOURI-KANSAS CITY 6551 GRADUATE STUDENT RESEARCH PROGRAM - HPCC 07/20/1995 - 07/31/1998 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> G D GUTE <i>Tech. Officer:</i> LERC/L SHAW <i>CASE Category:</i> 46 - MECHANICAL ENGR | NAG 5 4098 WASHINGTON UNIVERSITY - ST. LOUIS 6559 ISOTOPIC STRUCTURES AND FINE-SCALE CHRONOLOGY IN P 06/23/1997 - 03/31/2001 FY98: \$62,417 Total: \$169,417 <i>Prin. Invest.:</i> D A PODOSEK <i>Tech. Officer:</i> H C J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 1 1848 WASHINGTON UNIVERSITY - ST. LOUIS 6552 ULTRASONIC NONDESTRUCTIVE EVALUATION TECHNIQUES APPLIED TO THE QUANTITATIVE CHARACTERIZATION OF 06/12/1996 - 06/11/1998 FY98: \$25,001 Total: \$100,001 <i>Prin. Invest.:</i> J G MILLER <i>Tech. Officer:</i> LARC/W P WINFREE, LARC/P H JOHNSTON <i>CASE Category:</i> 13 - PHYSICS | NAG 5 4172 WASHINGTON UNIVERSITY - ST. LOUIS 6560 ANALYTICAL, EXPERIMENTAL, AND MODELING STUDIES OF IGNEOUS ROCKS 04/09/1997 - 11/30/2000 FY98: \$250,000 Total: \$490,000 <i>Prin. Invest.:</i> D A HASKIN <i>Tech. Officer:</i> GSFC/J BOYCE <i>CASE Category:</i> 12 - CHEMISTRY |
| NAG 2 945 WASHINGTON UNIVERSITY - ST. LOUIS 6553 CHRONIC RECORDING OF OTOLITH NERVES IN MICROGRAVITY 12/16/1994 - 12/31/1998 FY98: \$313,678 Total: \$724,452 <i>Prin. Invest.:</i> S M HIGHSTEIN <i>Tech. Officer:</i> ARC/W E HINDS, ARC/C M WINGET <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR) | NAG 5 4173 WASHINGTON UNIVERSITY - ST. LOUIS 6561 LUNAR AND PLANETARY SURFACE DYNAMICS AND EARLY HIS 06/02/1997 - 12/4/1998 FY98: \$215,000 Total: \$430,000 <i>Prin. Invest.:</i> D H HENBERG <i>Tech. Officer:</i> GSFC/J BOYCE <i>CASE Category:</i> 12 - CHEMISTRY |
| NAG 3 1910 WASHINGTON UNIVERSITY - ST. LOUIS 6554 GAS - PHASE COMBUSTION SYNTHESIS OF METAL AND ERAMIC NANOPARTICLES 06/24/1996 - 06/24/2000 FY98: \$52,498 Total: \$176,551 <i>Prin. Invest.:</i> R L AXELBAUM, B H CHAO <i>Tech. Officer:</i> LERC/S A GOKOGLU <i>CASE Category:</i> 49 - ENGINEERING, OTHER | NAG 5 4281 WASHINGTON UNIVERSITY - ST. LOUIS 6562 PRESOLAR GRAINS 04/10/1997 - 08/1/1997 FY98: \$0 Total: \$15,000 <i>Prin. Invest.:</i> P K ZINNER <i>Tech. Officer:</i> GSFC/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 2982 WASHINGTON UNIVERSITY - ST. LOUIS 6555 CHANGES ASSOCIATED WITH LEVEE BREAK LANDFORMS AND DEPOSITS FROM THE 1993 MISSOURI RIVER FLOOD 06/28/1995 - 07/31/1999 FY98: \$0 Total: \$213,240 <i>Prin. Invest.:</i> R E ARVIDSON <i>Tech. Officer:</i> GSFC/H V FREY <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE | NAG 5 4323 WASHINGTON UNIVERSITY - ST. LOUIS 6563 KINETICS OF THERMOCHEMICAL GAS-SOLID REACTIONS IMP RETENTION IN THE SOLAR NEBULA: IMPLICATIONS FOR 04/09/1997 - 01/31/2001 FY98: \$45,000 Total: \$102,814 <i>Prin. Invest.:</i> D FEGLEY <i>Tech. Officer:</i> GSFC/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 3657 WASHINGTON UNIVERSITY - ST. LOUIS 6556 STRUCTURE AND EVOLUTION OF OUTER PLANET SATELLITES 03/19/1997 - 10/31/1998 FY98: \$30,877 Total: \$60,477 <i>Prin. Invest.:</i> W B MCKINNON <i>Tech. Officer:</i> GSFC/P G ROGERS <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE | NAG 5 4324 WASHINGTON UNIVERSITY - ST. LOUIS 6564 LYMAN ALPHA PHOTOCHEMISTRY IN THE SOLAR NEBULA 04/04/1997 - 02/23/1998 FY98: \$0 Total: \$11,088 <i>Prin. Invest.:</i> D FEGLEY <i>Tech. Officer:</i> GSFC/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 3870 WASHINGTON UNIVERSITY - ST. LOUIS 6557 SURFACE PROCESSES ON VENUS AND MARS 02/11/1997 - 09/30/1998 FY98: \$162,154 Total: \$332,154 <i>Prin. Invest.:</i> R E ARVIDSON <i>Tech. Officer:</i> GSFC/P G ROGERS <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE | NAG 5 4325 WASHINGTON UNIVERSITY - ST. LOUIS 6565 DYNAMICAL INVESTIGATION OF PLANETARY SATELLITE CAP 04/09/1997 - 12/31/1998 FY98: \$25,396 Total: \$54,631 <i>Prin. Invest.:</i> D B MCKINNON <i>Tech. Officer:</i> GSFC/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 4002 WASHINGTON UNIVERSITY - ST. LOUIS 6558 COUPLED AQUEOUS ALTERATION OF MINERALS AND ORGANIC METEORITE PARENT BODIES AND ICY SATELLITES 03/04/1997 - 03/31/1998 FY98: \$0 Total: \$90,000 <i>Prin. Invest.:</i> D L SHOCK <i>Tech. Officer:</i> GSFC/M A MEYER <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR) | NAG 5 4435 WASHINGTON UNIVERSITY - ST. LOUIS 6566 PARTICIPATION IN THE DATA ANALYSIS AND SCIENCE ACT ORBITING LASER ALTIMETER (MOLA) & THE MARS GLOBAL 04/28/1997 - 12/31/1999 FY98: \$190,000 Total: \$270,000 <i>Prin. Invest.:</i> R J P HILLIPS <i>Tech. Officer:</i> GSFC/D E SMITH <i>CASE Category:</i> 93 - MULTIDISCIPLINARY, OTHER |

NAG 5 4448 WASHINGTON UNIVERSITY – ST. LOUIS **6567**
PLANETARY INTERIOR MODELLING AND TECTONIC IMPLICATIONS
 05/08/1997 – 12/31/1998 FY98: \$110,000 Total: \$214,000
Prin. Invest.: D J PHILLIPS
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4493 WASHINGTON UNIVERSITY – ST. LOUIS **6568**
SOLID STATE AND MASS SPECTROMETRIC MEASUREMENTS OF MATERIALS
 05/13/1997 – 02/28/1999 FY98: \$626,667 Total: \$1,486,667
Prin. Invest.: D M WALKER
Tech. Officer: GSFC/J BOYCE
CASE Category: 12 – CHEMISTRY

NAG 5 4564 WASHINGTON UNIVERSITY – ST. LOUIS **6569**
KINETICS OF THERMOCHEMICAL REACTIONS IMPORTANT IN SULFUR CYCLE
 05/29/1997 – 12/31/1998 FY98: \$86,000 Total: \$168,681
Prin. Invest.: D FEGLEY
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4565 WASHINGTON UNIVERSITY – ST. LOUIS **6570**
CHEMICAL WEATHERING KINETICS OF BASALT ON VENUS
 05/30/1997 – 02/14/1999 FY98: \$57,000 Total: \$112,164
Prin. Invest.: D FEGLEY
Tech. Officer: GSFC/D BOGAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4642 WASHINGTON UNIVERSITY – ST. LOUIS **6571**
RAMAN SPECTROMETER FOR SURFACE IDENTIFICATION OF COMPOUNDS ON SILICATE PLANETS AND SMALL SOLAR-SYSTEMS
 06/06/1997 – 06/30/1999 FY98: \$19,611 Total: \$128,169
Prin. Invest.: D A HASKIN
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 – MULTIDISCIPLINARY, OTHER

NAG 5 4820 WASHINGTON UNIVERSITY – ST. LOUIS **6572**
STUDIES OF INTERSTELLAR GRAINS AND SOLAR NEBULA STARDUST
 06/17/1997 – 11/30/1998 FY98: \$0 Total: \$75,000
Prin. Invest.: D A POSODEK
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 5078 WASHINGTON UNIVERSITY – ST. LOUIS **6573**
BASIC RESEARCH ON THE COMPOSITION OF HEAVY COSMIC RAYS: TIGER
 05/03/1996 – 12/31/1998 FY98: \$350,000 Total: \$818,000
Prin. Invest.: R W BINNS
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5110 WASHINGTON UNIVERSITY – ST. LOUIS **6574**
DEVELOPMENT OF SIFTER WITH SIMULTANEOUS TRACKING AND CALORIMETRY
 02/12/1997 – 11/30/1998 FY98: \$154,000 Total: \$310,000
Prin. Invest.: R BINNS
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 – PHYSICS

NAG 5 5114 WASHINGTON UNIVERSITY – ST. LOUIS **6575**
A BALLOON-BORNE HARD X-RAY IMAGING SPECTROMETER BASED ON CDZNTe TECHNOLOGY
 04/09/1997 – 03/31/1999 FY98: \$56,000 Total: \$116,000
Prin. Invest.: P L HINK
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5154 WASHINGTON UNIVERSITY – ST. LOUIS **6576**
ULTRA HEAVY AND HEAVY COSMIC-RAY MEASUREMENTS ON ACCESS
 03/26/1998 – 12/31/1998 FY98: \$77,390 Total: \$77,390
Prin. Invest.: W R BINNS
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 – PHYSICS

NAG 5 6125 WASHINGTON UNIVERSITY – ST. LOUIS **6577**
ACOUSTIC COMPOSITION EXPERIMENT FOR DETERMINING H₂ RATIO IN THE ATMOSPHERES OF THE JOVIAN PLANETS
 08/04/1997 – 07/14/1999 FY98: \$42,833 Total: \$228,340
Prin. Invest.: D FEGLEY
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 6291 WASHINGTON UNIVERSITY – ST. LOUIS **6578**
DEVELOPMENT OF A "NANOSIMS" ION MICROPROBE SUITABLE FOR ANALYSIS OF RETURNED SAMPLES FROM THE "STARDUST" MISSION
 09/10/1997 – 08/31/1999 FY98: \$17,667 Total: \$129,458
Prin. Invest.: D WALKER
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 6366 WASHINGTON UNIVERSITY – ST. LOUIS **6579**
CHEMICAL MODELS OF THE PRESENT AND PRIMORDIAL ATMOSPHERES OF GIANT PLANETS JUPITER, SATURN, URANUS AND NEPTUNE
 09/22/1997 – 12/31/1998 FY98: \$54,878 Total: \$104,878
Prin. Invest.: D FEGLEY
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6533 WASHINGTON UNIVERSITY – ST. LOUIS **6580**
SEMS: SYSTEM FOR ENVIRONMENTAL MONITORING AND SUSTAINABILITY
 10/23/1997 – 09/30/1998 FY98: \$68,671 Total: \$68,671
Prin. Invest.: R ARVIDSON
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCIENCE, OTHER

NAG 5 6756 WASHINGTON UNIVERSITY – ST. LOUIS **6581**
REGIONAL PLANETARY IMAGE FACILITY
 12/24/1997 – 12/14/1998 FY98: \$21,001 Total: \$21,001
Prin. Invest.: R ARVIDSON
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 6784 WASHINGTON UNIVERSITY – ST. LOUIS **6582**
COMPOSITION, LITHOLOGY, AND HETEROGENEITY OF THE LUNAR CRUST USING REMOTE-SENSING OF IMPACT-BLANKETS
 01/28/1998 – 01/31/1999 FY98: \$35,000 Total: \$35,000
Prin. Invest.: B L JOLLIFF
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

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| NAG 5 6865 WASHINGTON UNIVERSITY – ST. LOUIS 6583 CORRELATED WHIPPLE/OSSE OBSERVATIONS OF MRK 421 AND MRK 501. 02/18/1998 – 01/31/1999 FY98: \$12,117 Total: \$12,117 <i>Prin. Invest.:</i> J H BUCKLEY <i>Tech. Officer:</i> GSFC/J P NORRIS <i>CASE Category:</i> 11 – ASTRONOMY | NAGW 1872 WASHINGTON UNIVERSITY – ST. LOUIS 6591 ANALYSIS OF REMOTE SENSING DATA FOR THE SURFACES OF THE TERRESTRIAL PLANETS 07/16/1990 – 06/30/1997 FY98: –\$3,550 Total: \$1,173,186 <i>Prin. Invest.:</i> R E ARVIDSON <i>Tech. Officer:</i> HQ/J A MAXWELL <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE |
| NAG 5 7140 WASHINGTON UNIVERSITY – ST. LOUIS 6584 OPTICAL DESIGN AND BREADBOARD OF A RAMAN SPECTROMETER 03/13/1998 – 03/31/2001 FY98: \$46,958 Total: \$46,958 <i>Prin. Invest.:</i> L HASKIN <i>Tech. Officer:</i> GSFC/B CAMPBELL <i>CASE Category:</i> 11 – ASTRONOMY | NAGW 2304 WASHINGTON UNIVERSITY – ST. LOUIS 6592 STUDIES OF SOLAR NEBULA STRUCTURE AND EVOLUTION 02/26/1991 – 10/31/1997 FY98: \$0 Total: \$461,200 <i>Prin. Invest.:</i> F A PODOSEK <i>Tech. Officer:</i> HQ/J A NUTH <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER |
| NAG 5 7149 WASHINGTON UNIVERSITY – ST. LOUIS 6585 STUDIES OF PRESOLAR MATERIALS AND SOLAR NEBULA STRUCTURE AND EVOLUTION 03/23/1998 – 04/30/2001 FY98: \$40,859 Total: \$40,859 <i>Prin. Invest.:</i> F PODOSEK <i>Tech. Officer:</i> HQ/J BOYCE <i>CASE Category:</i> 11 – ASTRONOMY | NAGW 3024 WASHINGTON UNIVERSITY – ST. LOUIS 6593 PLANETARY INTERIOR MODELING AND TECTONIC IMPLICATIONS 04/03/1992 – 06/30/1997 FY98: \$0 Total: \$500,500 <i>Prin. Invest.:</i> R J PHILLIPS <i>Tech. Officer:</i> HQ/R WILLIAMS <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE |
| NAG 5 7613 WASHINGTON UNIVERSITY – ST. LOUIS 6586 DYNAMICS OF WETLANDS AMONG ENGINEERED PORTIONS OF MISSOURI RIVER SYSTEM 07/22/1998 – 01/31/1999 FY98: \$60,000 Total: \$60,000 <i>Prin. Invest.:</i> R E ARVIDSON <i>Tech. Officer:</i> GSFC/H V FREY <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE | NAGW 3070 WASHINGTON UNIVERSITY – ST. LOUIS 6594 KINETICS OF THERMOCHEMICAL GAS-SOLID REACTIONS IMPORTANT FOR VOLATILE RETENTION IN SOLAR NEBULA 05/06/1992 – 06/30/1997 FY98: –\$11 Total: \$246,989 <i>Prin. Invest.:</i> M B FEGLEY <i>Tech. Officer:</i> HQ/J A NUTH <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER |
| NAG 5 7696 WASHINGTON UNIVERSITY – ST. LOUIS 6587 HYDROTHERMAL ECOSYSTEMS IN A PLANETARY CONTEXT 09/17/1998 – 09/14/2001 FY98: \$151,586 Total: \$151,586 <i>Prin. Invest.:</i> E L SHOCK <i>Tech. Officer:</i> GSFC/M MEYER <i>CASE Category:</i> 11 – ASTRONOMY | NAGW 3343 WASHINGTON UNIVERSITY – ST. LOUIS 6595 ANALYTICAL EXPERIMENTAL AND MODELING STUDIES OF LUNAR AND TERRESTRIAL IgNEOUS ROCKS 01/15/1993 – 06/30/1997 FY98: \$0 Total: \$1,053,950 <i>Prin. Invest.:</i> L A HASKIN <i>Tech. Officer:</i> HQ/J C BRINTON <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE |
| NAG 8 1241 WASHINGTON UNIVERSITY – ST. LOUIS 6588 RESEARCH MICROGRAVITY CRYSTALLIZATION OF HUMAN ANTI-THROMBIN TO IMPROVE STRUCTURAL RESOLUTION/QUAL. 12/09/1996 – 06/30/1998 FY98: \$0 Total: \$27,300 <i>Prin. Invest.:</i> M R WARDELL <i>Tech. Officer:</i> MSFC/T Y MILLER, MSFC/D C CARTER <i>CASE Category:</i> 12 – CHEMISTRY | NAGW 3344 WASHINGTON UNIVERSITY – ST. LOUIS 6596 LUNAR AND PLANETARY SURFACE DYNAMICS AND EARLY HISTORY 01/28/1993 – 09/30/1997 FY98: \$0 Total: \$958,176 <i>Prin. Invest.:</i> C M HOHENBERG <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> HQ/J C BRINTON <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE |
| NAG 9 1006 WASHINGTON UNIVERSITY – ST. LOUIS 6589 GENESIS: NOBLE GAS MEASUREMENTS PHASE B 04/29/1998 – 04/28/1999 FY98: \$39,000 Total: \$39,000 <i>Prin. Invest.:</i> C M HOHENBERG <i>Tech. Officer:</i> JSC/F K STANSBERRY <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER | NAGW 3371 WASHINGTON UNIVERSITY – ST. LOUIS 6597 SOLID STATE AND MASS SPECTROMETRIC MEASUREMENTS OF EXTRATERRESTRIAL MATERIALS 02/10/1993 – 09/30/1997 FY98: \$0 Total: \$3,135,000 <i>Prin. Invest.:</i> R M WALKER <i>Tech. Officer:</i> HQ/J BOYCE <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE |
| NAG 9 1010 WASHINGTON UNIVERSITY – ST. LOUIS 6590 GENESIS DISCOVERY MISSION 05/05/1998 – 05/04/1999 FY98: \$15,000 Total: \$15,000 <i>Prin. Invest.:</i> F A PODOSEK <i>Tech. Officer:</i> JSC/E K STANSBERRY <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER | NAGW 3634 WASHINGTON UNIVERSITY – ST. LOUIS 6598 ISOTOPIC STRUCTURE AND FINE-SCALE CHRONOLOGY IN PLANETARY MATERIALS 06/17/1993 – 03/31/1998 FY98: \$0 Total: \$364,339 <i>Prin. Invest.:</i> F PODOSEK <i>Tech. Officer:</i> HQ/J BOYCE <i>CASE Category:</i> 32 – GEOLOGICAL SCIENCE |

NAGW 3874 WASHINGTON UNIVERSITY - ST. LOUIS **6599**
"THEORETICAL FOUND. OF GR AV. PHYSICS EXPERIMENTS IN SPACE"
 02/25/1994 - 12/31/1997 FY98: \$0 Total: \$212,928
Prin. Invest.: C M WILL
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 4261 WASHINGTON UNIVERSITY - ST. LOUIS **6600**
THE DEVELOPMENT OF A HIGH RESOLUTION POSITION SENSITIVE DETECTOR
 01/13/1995 - 12/31/1997 FY98: -\$3,538 Total: \$101,462
Prin. Invest.: P HINK
Tech. Officer: HQ/L K KALUZIENSKI
CASE Category: 11 - ASTRONOMY

NAGW 4485 WASHINGTON UNIVERSITY - ST. LOUIS **6601**
CHEMICAL WEATHERING KINETICS OF BASALT ON VENUS
 05/12/1995 - 02/14/1998 FY98: -\$1 Total: \$102,478
Prin. Invest.: B FEGLEY
Tech. Officer: HQ/J BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAGW 4881 WASHINGTON UNIVERSITY - ST. LOUIS **6602**
LUNAR CRUSTAL STRUCTURE
 12/11/1995 - 12/31/1997 FY98: \$0 Total: \$105,000
Prin. Invest.: R J PHILLIPS
Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 4906 WASHINGTON UNIVERSITY - ST. LOUIS **6603**
GEOLOGY OF LUNAR LANDING SITES AND ORIGIN OF BASIN EJECTA FROM A CLEMENTINE PERSPECTIVE
 01/29/1996 - 12/31/1997 FY98: \$0 Total: \$99,000
Prin. Invest.: L A HASKIN
Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 5012 WASHINGTON UNIVERSITY - ST. LOUIS **6604**
DYNAMICAL INVESTIGATION OF PLANETARY SATELLITE CAPTURE
 03/27/1996 - 06/30/1997 FY98: \$0 Total: \$28,662
Prin. Invest.: W B MCKINNON
Tech. Officer: HQ/P ROGERS, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 5207 WASHINGTON UNIVERSITY - ST. LOUIS **6605**
RAMAN SPECTROMETER FOR SURFACE IDENTIFICATION OF MINERALS & ORGANIC COMPOUNDS ON SILICATE PLANETS
 10/04/1996 - 06/30/1997 FY98: \$0 Total: \$58,367
Prin. Invest.: L A HASKIN
Tech. Officer: HQ/T KOSTIUK, HQ/H C BRINTON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 2 5244 WASHINGTON UNIVERSITY - ST. LOUIS **6606**
EXPERIMENTAL INVESTIGATION OF ORGANIC SYNTHESIS IN HYDROTHERMAL ENVIRONMENTS
 11/14/1997 - 10/31/1998 FY98: \$63,502 Total: \$63,502
Prin. Invest.: E L SHOCK
Tech. Officer: ARC/S CHANG, ARC/M FONDA
CASE Category: 12 - CHEMISTRY

NCC 8 85 WASHINGTON UNIVERSITY - ST. LOUIS **6607**
COMPOSITION EFFECTS ON PHASE FORMATION & STABILITY
 04/22/1996 - 04/21/2000 FY98: \$124,583 Total: \$304,483
Prin. Invest.: K F KELTON
Tech. Officer: MSFC/D R WOODARD, MSFC/R W ALLEN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 8 154 WASHINGTON UNIVERSITY - ST. LOUIS **6608**
COOPERATIVE AGREEMENT ENTITLED "IMAGING CALORIMETER FOR ACCESS (ICA)"
 07/10/1998 - 07/09/1999 FY98: \$55,000 Total: \$55,000
Prin. Invest.: P L HINK, M H ISRAEL, R W BINNS
Tech. Officer: MSFC/T A PARNELL, MSFC/M J CHRISTL
CASE Category: 11 - ASTRONOMY

NGT 40029 WASHINGTON UNIVERSITY - ST. LOUIS **6609**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 06/05/1991 - 02/28/1997 FY98: \$0 Total: \$830,000
Prin. Invest.: R E ARVIDSON
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51298 WASHINGTON UNIVERSITY - ST. LOUIS **6610**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/28/1994 - 06/30/1997 FY98: -\$5,412 Total: \$60,588
Prin. Invest.: R M WALKER
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 - PHYSICS

NGT 51319 WASHINGTON UNIVERSITY - ST. LOUIS **6611**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/07/1994 - 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J KLARMANN
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 - PHYSICS

NGT 1 52197 WASHINGTON UNIVERSITY - ST. LOUIS **6612**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/09/1998 - 06/30/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: K R WATERS
Tech. Officer: LARC/P H JOHNSTON
CASE Category: 13 - PHYSICS

NGT 3 52313 WASHINGTON UNIVERSITY - ST. LOUIS **6613**
LOW-TEMPERATURE DEPOSITION OF THIN FILM PHOTOVOLTAIC MATERIALS BY SPRAY CVD & CHEMICAL BATH EPITAXY
 06/20/1996 - 06/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: W BUHRO
Tech. Officer: LERC/F MONTEGANI
CASE Category: 43 - CHEMICAL ENGR

NGT 5 50023 WASHINGTON UNIVERSITY - ST. LOUIS **6614**
TIGER: A COSMIC RAY DETECTOR USED TO STUDY THE ABU ELEMENTS
 08/04/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: SPOSATO
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50030 WASHINGTON UNIVERSITY - ST. LOUIS **6615**
COMPOSITIONAL EFFECTS ON TIME DEPENDENT NUCLEATION
 08/04/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: K KELTON/CROAT
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 11 - ASTRONOMY

NGT 5 50063 WASHINGTON UNIVERSITY - ST. LOUIS **6616**
TECTONIC PROCESSES ON ICY SATELLITES
 08/15/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: W B MCKINNON/DOMBAR
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50170 WASHINGTON UNIVERSITY - ST. LOUIS **6617**
GRADUATE STUDENT RESEARCH IN X-RAY ASTRONOMY
 05/22/1998 - 06/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: P L HINK/SALVIS
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 13 - PHYSICS

MONTANA

NGT 9 14 CARROLL COLLEGE **6618**
ADD FUNDING
 09/24/1996 - 09/30/1997 FY98: -\$1,458 Total: \$9,542
Prin. Invest.: T J MULLEN
Tech. Officer: JSC/E PRITCHARD
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 5 4148 FORT BELKNAP COLLEGE **6619**
PRESERVING THE PAST AND THE FUTURE (PACE/MSET)
 03/24/1997 - 09/30/1998 FY98: \$100,000 Total: \$200,000
Prin. Invest.: M TAYLOR
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1018 MONTANA STATE UNIVERSITY **6620**
BACTERIAL GROWTH ON SURFACES IN MICROGRAVITY & ON EARTH
 10/25/1995 - 04/30/1999 FY98: \$59,700 Total: \$211,950
Prin. Invest.: B H PYLE, G A MCFETERS
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3159 MONTANA STATE UNIVERSITY **6621**
THERMAL EVOLUTION AND RELATED PROBLEMS OF NEUTRON STRATS
 01/24/1996 - 02/14/1999 FY98: \$0 Total: \$56,000
Prin. Invest.: S TSURUTA
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3652 MONTANA STATE UNIVERSITY **6622**
MOLECULAR AND GEOCHEMICAL ANALYSIS OF HOT SPRING C
ROFLEXUS MATS AS STROMATOLITE ANALOGS
 03/25/1997 - 10/31/1998 FY98: \$150,061 Total: \$274,062
Prin. Invest.: M G WARD
Tech. Officer: GSFC/M MEYER
CASE Category: 12 - CHEMISTRY

NAG 5 3688 MONTANA STATE UNIVERSITY **6623**
X-RAY AND SP N VARIABILITY IN NEUTRON STARS AND NE
 01/15/1997 - 01/14/1999 FY98: \$30,000 Total: \$59,416
Prin. Invest.: S K LINK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3750 MONTANA STATE UNIVERSITY **6624**
RAPID BACTERIAL TESTING FOR SPACECRAFT WATER
 03/10/1997 - 03/14/1999 FY98: \$102,226 Total: \$200,712
Prin. Invest.: G A MCFETERS
Tech. Officer: GSFC/G FOGLEMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4576 MONTANA STATE UNIVERSITY **6625**
CENTER FOR EDUCATIONAL RESOURCES
 05/13/1997 - 05/11/1999 FY98: \$0 Total: \$999,975
Prin. Invest.: G T JHILL
Tech. Officer: GSFC/M V PHELPS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6005 MONTANA STATE UNIVERSITY **6626**
CAUSES AND CONSEQUENCES OF LAND-COVER IN A GREATER
ASSESSMENT, MONITORING AND OUTREACH
 09/11/1997 - 07/14/2000 FY98: \$195,630 Total: \$503,130
Prin. Invest.: A H SEN
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6110 MONTANA STATE UNIVERSITY **6627**
MAGNETIC HELICITY AND THE SOLAR DYNAMO
 07/28/1997 - 07/31/1999 FY98: \$55,710 Total: \$232,923
Prin. Invest.: D C ANFIELD
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7296 MONTANA STATE UNIVERSITY **6628**
TOPOLOGY AND RECONNECTION IN A SURVEY OF X-RAY BRIGHT POINTS
 04/13/1998 - 04/31/1999 FY98: \$39,741 Total: \$39,741
Prin. Invest.: D W LONGCOPE
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 8 1399 MONTANA STATE UNIVERSITY **6629**
LARGE SCALE ORGANIZATION OF ACTIVE REGION MAGNETIC FIELDS
 08/11/1997 - 08/11/2000 FY98: \$61,443 Total: \$120,050
Prin. Invest.: R C ANFIELD
Tech. Officer: MSFC/M J HAGYARD, MSFC/G A GARY
CASE Category: 11 - ASTRONOMY

NAGW 2764 MONTANA STATE UNIVERSITY **6630**
MOLECULAR AND GEOCHEMICAL ANALYSIS OF HOT SPRING C
YNOBAC-TERIAL AND CHLOROFLEXUS
 11/08/1991 - 10/31/1997 FY98: \$0 Total: \$465,102
Prin. Invest.: D M VARD
Tech. Officer: HQ/J D RUMMEL
CASE Category: 51 - ENVIRONMENTAL BIOLOGY

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| NAGW 4866 MONTANA STATE UNIVERSITY 6631 RESEARCH IN GRAVITATIONAL ASTROPHYSICS 11/22/1995 – 12/31/1997 FY98: -\$3 <i>Prin. Invest.:</i> L A LINDBLOM <i>Tech. Officer:</i> HQ/L TAFF, HQ/D W WEEDMAN CASE Category: 13 – PHYSICS Total: \$24,461 | NGT 51667 MONTANA STATE UNIVERSITY 6639 GRAD STUD RES PROG 08/20/1996 – 06/30/1997 FY98: \$0 <i>Prin. Invest.:</i> H SCHMIDT <i>Tech. Officer:</i> HQ/G LESANE CASE Category: 13 – PHYSICS Total: \$22,000 |
| NAGW 5001 MONTANA STATE UNIVERSITY 6632 RAPID BACTERIAL TESTING FOR SPACECRAFT WATERS 03/22/1996 – 05/31/1997 FY98: \$0 <i>Prin. Invest.:</i> G A MCFETERS, PH.D. <i>Tech. Officer:</i> HQ/G FOHLEMAN CASE Category: 59 – LIFE SCIENCE, OTHER Total: \$94,923 | NGT 2 52202 MONTANA STATE UNIVERSITY 6640 THE EFFECTS OF SURFACE HEATING ON BOUNDARY LAYER S TABILITY IN A 2-D SUPERSONIC WIND-TUNNEL 09/21/1995 – 07/31/1998 FY98: \$0 <i>Prin. Invest.:</i> A DEMETRIADES, T P BROGAN <i>Tech. Officer:</i> ARC/J A LAUB, ARC/L S KING CASE Category: 41 – AERONAUTICAL ENGR Total: \$73,719 |
| NAGW 5072 MONTANA STATE UNIVERSITY 6633 MAGNETIC HELICITY AND THE SOLAR DYNAMO 05/21/1996 – 07/31/1997 FY98: \$0 <i>Prin. Invest.:</i> R C CANFIELD <i>Tech. Officer:</i> HQ/W J WAGNER, HQ/G L WITHBROE CASE Category: 11 – ASTRONOMY Total: \$171,740 | NGT 5 24 MONTANA STATE UNIVERSITY 6641 HIGH POWER LASER DIODE TRANSMITTER TO MEASURE WATE R VAPOR AND HIGH TEMPERATURE OF THE ATMOSPHERE... 07/15/1996 – 07/31/1997 FY98: \$0 <i>Prin. Invest.:</i> J CARLSTEN <i>Tech. Officer:</i> GSFC/G A SOFFEN, GSFC/J ABSHIRE CASE Category: 13 – PHYSICS Total: \$44,000 |
| NCC 2 5177 MONTANA STATE UNIVERSITY 6634 EVALUATION OF BIOFILM RESISTANCE OF NASA PLASMA-DE OPSITED POLYMERIC COATINGS 04/15/1996 – 05/31/1997 FY98: -\$5,489 <i>Prin. Invest.:</i> J D BRYERS <i>Tech. Officer:</i> ARC/M A GOLUB CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR) Total: \$34,511 | NGT 5 26 MONTANA STATE UNIVERSITY 6642 THEORETICAL AND OBSERVATIONAL INVESTIGATION OF X-R AY EMIS- SION FROM SEYFERT 1 NUCLEI 07/15/1996 – 07/31/1997 FY98: \$0 <i>Prin. Invest.:</i> S TSURUTA <i>Tech. Officer:</i> GSFC/G A SOFFEN, GSFC/R MUSHOTZKY CASE Category: 11 – ASTRONOMY Total: \$22,000 |
| NCC 2 5277 MONTANA STATE UNIVERSITY 6635 MICROBIOLOGICAL SENSING SYSTEM FOR A EUROPA PROBE APPLICA- TION 07/21/1998 – 07/31/1999 FY98: \$500 <i>Prin. Invest.:</i> B H PYLE, G MCFETERS <i>Tech. Officer:</i> ARC/M T FLYNN CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR) Total: \$500 | NGT 5 40036 MONTANA STATE UNIVERSITY 6643 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM. 01/31/1997 – 02/28/1999 FY98: \$256,250 <i>Prin. Invest.:</i> W A HISCOCK <i>Tech. Officer:</i> GSFC/L KEFFER CASE Category: 99 – MULTI INTERDISCIPL, OTHER Total: \$461,250 |
| NCC 5 240 MONTANA STATE UNIVERSITY 6636 MONTANA EPSCOR PROGRAM 09/12/1997 – 02/28/1999 FY98: \$500,000 <i>Prin. Invest.:</i> W HASCOCK <i>Tech. Officer:</i> GSFC/J DASCH CASE Category: 11 – ASTRONOMY Total: \$1,000,000 | NAG 8 1098 MONTANA TECH OF THE UNIVERSITY OF MONTANA 6644 JOVE 10/18/1994 – 11/30/1998 FY98: \$0 <i>Prin. Invest.:</i> T MOON, K OLSON <i>Tech. Officer:</i> MSFC/F SIX CASE Category: 29 – MATH/COMPUTER SCI, OTHER Total: \$100,501 |
| NCCW 58 MONTANA STATE UNIVERSITY 6637 EPSCOR PROGRAM 08/19/1994 – 02/28/1997 FY98: \$0 <i>Prin. Invest.:</i> W A HISCOCK <i>Tech. Officer:</i> HQ/L KEFFER, HQ/E T SCHWARTZ CASE Category: 99 – MULTI INTERDISCIPL, OTHER Total: \$1,500,000 | NAG 8 1213 ROCKY MOUNTAIN COLLEGE 6645 JOVE 09/22/1995 – 08/31/1998 FY98: \$0 <i>Prin. Invest.:</i> J LYMAN <i>Tech. Officer:</i> MSFC/D SIX CASE Category: 39 – ENVIRONMENTAL SCI, OTHER Total: \$68,000 |
| NGT 40041 MONTANA STATE UNIVERSITY 6638 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA M 06/03/1991 – 02/28/1998 FY98: \$0 <i>Prin. Invest.:</i> W A HISCOCK <i>Tech. Officer:</i> HQ/E T SCHWARTZ CASE Category: 99 – MULTI INTERDISCIPL, OTHER Total: \$1,004,500 | NAG 4 128 SALISH KOOTENAI COLLEGE 6646 ALL NATIONS ALLIANCE FOR AMERICAN INDIANS IN SCIENCE, ENGINEER- ING AND MATHEMATICS 04/23/1997 – 05/23/1999 FY98: \$249,423 <i>Prin. Invest.:</i> J GOBERT <i>Tech. Officer:</i> DFRC/E L DUKE CASE Category: 41 – AERONAUTICAL ENGR Total: \$648,936 |

NAG 5 2297 UNIVERSITY OF MONTANA **6647**
SIMULATION OF BOREAL ECOSYSTEM CARBON AND WATER BUDGETS: SCALING FROM LOCAL TO REGIONAL EXTENTS...
 07/12/1993 - 01/31/1998 FY98: \$0 Total: \$305,000
Prin. Invest.: S W RUNNING
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3469 UNIVERSITY OF MONTANA **6648**
ASSESSMENT OF CLIMATIC AND ANTHROPOGENIC IMPACTS ON CYCLE CONSTRAINED BY ATMOSPHERIC MEASUREMENTS AND
 11/02/1996 - 04/30/1999 FY98: \$87,223 Total: \$139,005
Prin. Invest.: S W RUNNING
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3852 UNIVERSITY OF MONTANA **6649**
MULTIPLE SCALE ANALYSIS OF FOREST BIOGEOCHEMISTRY: UATION AND IMPLEMENTATION OF RHESYS
 12/04/1996 - 02/28/1998 FY98: \$0 Total: \$192,397
Prin. Invest.: D W RUNNING
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4923 UNIVERSITY OF MONTANA **6650**
ASSIMILATION OF SAR DERIVED PARAMETER MAPS INTO BI OVER BOREAS STUDY AREA
 06/23/1997 - 05/31/1999 FY98: \$63,584 Total: \$124,731
Prin. Invest.: S W RUNNING
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6575 UNIVERSITY OF MONTANA **6651**
VEMAP PHASE II
 11/17/1997 - 10/31/1999 FY98: \$169,800 Total: \$169,800
Prin. Invest.: D W RUNNING
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6719 UNIVERSITY OF MONTANA **6652**
RADAR BASED MEASURE OF INTERANNUAL VEGETATION PHENOLOGY FOR MONITORING GLOBAL CHANGE RESPONSES OF
 12/10/1997 - 08/31/1999 FY98: \$134,043 Total: \$134,043
Prin. Invest.: S W RUNNING
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5197 UNIVERSITY OF MONTANA **6653**
VEMAP PHASE II
 09/26/1996 - 05/31/1997 FY98: -\$891 Total: \$83,904
Prin. Invest.: S W RUNNING
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 31368 UNIVERSITY OF MONTANA **6654**
EOS MODIS INVESTIGATION FROM DR. STEVE RUNNING
 01/07/1992 - 12/14/2001 FY98: \$580,000 Total: \$2,924,500
Prin. Invest.: S W RUNNING
Tech. Officer: GSFC/H OSEROFF
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30020 UNIVERSITY OF MONTANA **6655**
DEVELOPING A GLOBAL PHENOLOGY MONITOR: A METHOD FOR RESPONSES TO CLIMATE CHANGE
 10/14/1996 - 08/11/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: S R JINNING
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50225 UNIVERSITY OF MONTANA **6656**
MODELING NOVEL FT-IR SPECTROSCOPIC MEASUREMENTS OF OXYGENATED HYDROCARBON LEVELS FROM BIO
 09/29/1998 - 08/1/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R J FIELD, MASON
Tech. Officer: HQ/A NURRIDIN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NEBRASKA

NAG 2 1003 CREIGHTON UNIVERSITY **6657**
EFFECTS OF WEIGHTLESSNESS ON VESTIBULAR DEVELOPMENT IN QUAIL
 08/23/1995 - 09/30/1998 FY98: \$0 Total: \$183,031
Prin. Invest.: B FRITZSCH, L L BRUCE
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 1 1447 UNIVERSITY OF NEBRASKA - LINCOLN **6658**
THEORETICAL EVALUATION OF THE RADIATION HAZARDS FROM COSMIC RAYS WITHIN SPACE VEHICLES
 08/26/1992 - 12/31/1998 FY98: \$0 Total: \$70,001
Prin. Invest.: R KATZ
Tech. Officer: LARC/F A CUCINOTTA, LARC/E J CONWAY
CASE Category: 13 - PHYSICS

NAG 3 1802 UNIVERSITY OF NEBRASKA - LINCOLN **6659**
ELECTROCHROMICS AND OTHER MATERIALS FOR SPACE POWER SYSTEMS
 01/25/1996 - 11/30/1997 FY98: \$0 Total: \$82,500
Prin. Invest.: J A WOLAM
Tech. Officer: LERC/D A JAWORSKE
CASE Category: 13 - PHYSICS

NAG 3 2086 UNIVERSITY OF NEBRASKA - LINCOLN **6660**
DEGRADATION OF MATERIALS
 11/18/1997 - 10/31/1998 FY98: \$41,250 Total: \$41,250
Prin. Invest.: J A WOLAM
Tech. Officer: LERC/D A JAWORSKE
CASE Category: 13 - PHYSICS

NAG 5 2331 UNIVERSITY OF NEBRASKA - LINCOLN **6661**
SURFACE ENERGY AND WATER BALANCES OF FOREST AND WETLAND SUBSYSTEMS IN THE BOREAL FOREST: SURFACE..
 07/27/1993 - 07/31/1997 FY98: \$0 Total: \$231,800
Prin. Invest.: D E JELINSKI
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2585 UNIVERSITY OF NEBRASKA – LINCOLN **6662**
FIELD MICROMETEOROLOGICAL MEASUREMENTS, PROCESS LE VEL
STUDIES, AND MODELING OF METHANE. . . .
 05/05/1994 – 06/14/1997 FY98: \$0 Total: \$61,000
Prin. Invest.: S B VERMA
Tech. Officer: GSFC/F G HALL, GSFC/P J SELLERS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 2628 UNIVERSITY OF NEBRASKA – LINCOLN **6663**
LABORATORY EQUIPMENT FOR THE SOUTHERN STUDY AREAS
 06/15/1994 – 12/14/1998 FY98: \$0 Total: \$74,631
Prin. Invest.: E WALTER-SHEA
Tech. Officer: GSFC/F HALL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3442 UNIVERSITY OF NEBRASKA – LINCOLN **6664**
CHARACTERIZATION OF LANDSAT-7 GEOMETRY AND RADIOMETRY FOR
LAND COVER ANALYSES
 10/07/1996 – 10/31/1998 FY98: \$24,473 Total: \$48,429
Prin. Invest.: J W MERCHANT
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4217 UNIVERSITY OF NEBRASKA – LINCOLN **6665**
CONSORTIUM FOR THE APPLICATION OF SPACE DATA TO ED
 03/15/1997 – 12/31/1998 FY98: \$473,000 Total: \$950,000
Prin. Invest.: D RUNDQUIST
Tech. Officer: GSFC/J HARRIS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 5024 UNIVERSITY OF NEBRASKA – LINCOLN **6666**
COORDINATION OF SURFACE GLACIOLOGICAL INVESTIGATIONS &
FIELD OPS: NASA OVERSNOWEXP, GREENLAND 94
 05/25/1994 – 01/31/1999 FY98: \$348,655 Total: \$2,187,670
Prin. Invest.: K C KUIVINAN, NONE
Tech. Officer: GSFC/W B KRABILL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6010 UNIVERSITY OF NEBRASKA – LINCOLN **6667**
INTERACTION OF RADIATION WITH PLANETARY GASES
 07/28/1997 – 11/30/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: D SAMSON
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6025 UNIVERSITY OF NEBRASKA – LINCOLN **6668**
"COMPRESSION FOR REMOTE SENSING APPLICATIONS",
 09/08/1997 – 09/14/1998 FY98: \$0 Total: \$55,000
Prin. Invest.: K SAYWOOD
Tech. Officer: GSFC/P YEH
CASE Category: 49 – ENGINEERING, OTHER

NAG 5 6506 UNIVERSITY OF NEBRASKA – LINCOLN **6669**
MRK 42 AND MRK 957: TWO EXTREME NARROW-LINE STRONG FE II EMIT-
TING QUASARS – ASCA PROPOSAL A05
 11/17/1997 – 10/31/1998 FY98: \$17,800 Total: \$17,800
Prin. Invest.: M GASKELL
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 6669 UNIVERSITY OF NEBRASKA – LINCOLN **6670**
AN INITIATIVE TO CREATE AN ENVIRONMENTAL MONITORING LABORA-
TORY AT THE UNIVERSITY OF NEBRASKA-LINC
 12/10/1997 – 12/14/1998 FY98: \$357,000 Total: \$357,000
Prin. Invest.: D RUNDQUIST
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6990 UNIVERSITY OF NEBRASKA – LINCOLN **6671**
CHARACTERIZATION AND IMPROVEMENT OF EOS LAND PRODUCTS
USING MEASUREMENTS AT AMERIFLUX GRASSLAND AND
 02/25/1998 – 02/28/2001 FY98: \$185,000 Total: \$185,000
Prin. Invest.: D WALTER-SHEA, NONE
Tech. Officer: GSFC/D C WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7676 UNIVERSITY OF NEBRASKA – LINCOLN **6672**
"COMPRESSION FOR REMOTE SENSING APPLICATIONS", CONTROL NO.
5-3427.
 09/17/1998 – 09/30/1999 FY98: \$60,000 Total: \$60,000
Prin. Invest.: K SAYOOD
Tech. Officer: GSFC/P YEH
CASE Category: 49 – ENGINEERING, OTHER

NAGW 1751 UNIVERSITY OF NEBRASKA – LINCOLN **6673**
INTERACTION OF RADIATION WITH PLANETARY GASES
 04/17/1989 – 11/30/1996 FY98: \$0 Total: \$367,631
Prin. Invest.: J A SAMSON
Tech. Officer: HQ/J T BERGSTRAHL
CASE Category: 11 – ASTRONOMY

NAGW 3940 UNIVERSITY OF NEBRASKA – LINCOLN **6674**
NAGW-3940/B UNIV. NEBRASKA-LINCOLN "REG. & GLOBAL LAND COVER
CHAR. VIA SATELLITE.." 36-MO MULTI YR
 04/19/1994 – 09/30/1997 FY98: \$0 Total: \$399,999
Prin. Invest.: J W MERCHANT
Tech. Officer: HQ/A J TUYAHOV, HQ/D M BUTLER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 3984 UNIVERSITY OF NEBRASKA – LINCOLN **6675**
NEBRASKA EARTH SCIENCE EDUC NETWORK-ENHANCING THE NASA
UNIV & PRE-COLLEGE SCIENCE TEACHER CONNECTION
 05/25/1994 – 02/28/1997 FY98: -\$2,687 Total: \$197,313
Prin. Invest.: D GALE, D C GOSSELIN, P B WIGLEY
Tech. Officer: HQ/E LUCIER, HQ/O SPAULDING
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC13 98003 UNIVERSITY OF NEBRASKA – LINCOLN **6676**
AN INITIATIVE TO CREATE AN AFFILIATED RESEARCH CENTER PROGRAM
 08/17/1998 – 08/16/2001 FY98: \$50,000 Total: \$50,000
Prin. Invest.: RUNDQUIST
Tech. Officer: SSC/H CARR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 51293 UNIVERSITY OF NEBRASKA – LINCOLN **6677**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/06/1994 – 11/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: S E REICHENBACH
Tech. Officer: HQ/D HOLLAND
CASE Category: 22 – COMPUTER SCIENCE

NGT 51379 UNIVERSITY OF NEBRASKA - LINCOLN **6678**
GRADUATE STUDIES RESEARCHER PROGRAM
 06/26/1995 - 09/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: A SAMAL
Tech. Officer: HQ/D HOLLAND, HQ/D GLASCO
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 50098 UNIVERSITY OF NEBRASKA - LINCOLN **6679**
LARGE SCALE DISTRIBUTED SYSTEMS FOR COMPUTER VISO
 09/06/1997 - 12/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: SAMAL
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4362 UNIVERSITY OF NEBRASKA - MEDICAL CENTER **6680**
BLOOD VOLUME REGULATION IN PRIMATES DURING SPACE FLIGHT
 03/22/1997 - 08/31/1997 FY98: \$0 Total: \$338,204
Prin. Invest.: K G CORNISH
Tech. Officer: HQ/F SULZMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1274 UNIVERSITY OF NEBRASKA AT KEARNEY **6681**
JOVE RESEARCH STUDY
 01/28/1997 - 08/31/1999 FY98: \$14,000 Total: \$83,116
Prin. Invest.: M GLASSER, D
Tech. Officer: MSFC/JF DOWDY, MSFC/J R PRUITT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 169 UNIVERSITY OF NEBRASKA-OMAHA **6682**
THE NEBRASKA INITIATIVE FOR AEROSPACE RESEARCH AND DEVELOPMENT
 12/05/1996 - 11/14/1998 FY98: \$500,000 Total: \$1,000,000
Prin. Invest.: B D BOWEN, NONE
Tech. Officer: HQ/J DASCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 40051 UNIVERSITY OF NEBRASKA-OMAHA **6683**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 07/26/1991 - 01/31/1998 FY98: \$0 Total: \$1,004,700
Prin. Invest.: B B BOWEN
Tech. Officer: HQ/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40037 UNIVERSITY OF NEBRASKA-OMAHA **6684**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM.
 02/13/1997 - 02/28/1999 FY98: \$271,250 Total: \$491,250
Prin. Invest.: B D BOWEN
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NEVADA

NAG 1 1707 UNIV. OF NEVADA - DESERT RES. INST. **6685**
MICROPHYSICS AND RADIATIVE PROPERTIES OF CIRRUS: INSTRUMENTATION AND ANALYSIS
 05/04/1995 - 05/03/1998 FY98: \$0 Total: \$198,000
Prin. Invest.: J HALLEH, W P ARNOTT
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1845 UNIV. OF NEVADA - DESERT RES. INST. **6686**
CLOUD CONDENSATION NUCLEI IN FIRE III MY 1/3
 06/04/1996 - 06/30/1999 FY98: \$75,000 Total: \$179,020
Prin. Invest.: J G HUDSON
Tech. Officer: LARC/D S MCDUGAL, LARC/J L RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2046 UNIV. OF NEVADA - DESERT RES. INST. **6687**
MICROPHYSICS AND RADIATIVE PROPERTIES OF CIRRUS: INSTRUMENTATION AND ANALYSIS/ PREVIOUS # NAG-1-1707
 04/01/1998 - 05/31/1999 FY98: \$76,000 Total: \$76,000
Prin. Invest.: J H LLETT
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1104 UNIV. OF NEVADA - DESERT RES. INST. **6688**
ANALYTICAL TOOLS FOR CLOUDSCOPE ICE MEASUREMENT
 01/21/1997 - 12/31/1998 FY98: -\$1 Total: \$57,778
Prin. Invest.: W P ARNOTT, J HALLETT
Tech. Officer: AR/C/E P CONDON, AR/C/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3987 UNIV. OF NEVADA - DESERT RES. INST. **6689**
ORBITAL RADAR STUDIES OF EOLIAN PROCESSES IN THE McANTARCTICA
 03/24/1997 - 09/30/1998 FY98: \$0 Total: \$63,819
Prin. Invest.: N LANCASTER
Tech. Officer: GSFC/R H THOMAS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3753 UNIV. OF NEVADA - DESERT RES. INST. **6690**
SOUTHERN HEMISPHERE CLOUD CONDENSATION NUCLEI
 09/16/1993 - 09/30/1997 FY98: \$0 Total: \$286,220
Prin. Invest.: J G HUDSON, C TWOHY
Tech. Officer: HQ/L T SUTTLES, HQ/A C JANETOS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4214 UNIV. OF NEVADA - DESERT RES. INST. **6691**
NASA LANDSAT PATHFINDER GLOBAL LAND COVER TEST SITES PROJECT
 11/17/1994 - 08/01/1998 FY98: \$0 Total: \$292,908
Prin. Invest.: K C MCGUIRE
Tech. Officer: HQ/L E MAIDEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4976 UNIV. OF NEVADA - DESERT RES. INST. **6692**
ORBITAL RADAR STUDIES OF EOLIAN PROCESS IN THE MCMURDO DRY VALLEYS OF ANTARCTICA
 03/01/1996 - 09/30/1997 FY98: -\$863 Total: \$56,177
Prin. Invest.: D LANCASTER
Tech. Officer: HQ/F H THOMAS, HQ/R C HARRISS
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 30286 UNIV. OF NEVADA - DESERT RES. INST. **6693**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/10/1994 - 08/31/1998 FY98: \$753 Total: \$66,753
Prin. Invest.: R WHARTON, JR
Tech. Officer: HQ/J S THEON, HQ/G ASRAR
CASE Category: 31 - ENVIRONMENTAL SCI, OTHER

NGT 5 40038 UNIV. OF NEVADA – DESERT RES. INST. **6694**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 01/24/1997 – 02/28/1999 FY98: \$212,500 Total: \$382,500
Prin. Invest.: J V TARANIK
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 3917 UNIVERSITY OF NEVADA – LAS VEGAS **6695**
LABORATORY STUDIES OF THERMAL ENERGY CHARGE TRANSFUSIONS
IN ASTROPHYSICAL PLASMAS
 03/27/1997 – 02/14/1998 FY98: \$0 Total: \$24,000
Prin. Invest.: D H KWONG
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 3994 UNIVERSITY OF NEVADA – LAS VEGAS **6696**
EFFICIENT TRANSMISSION AND MANIPULATION OF SCIENTI
CARBON, IRON, SULPHUR, AND NITROGEN IONS IN
 03/06/1997 – 02/28/1999 FY98: \$85,000 Total: \$175,000
Prin. Invest.: D LATIFI
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 6727 UNIVERSITY OF NEVADA – LAS VEGAS **6697**
LABORATORY STUDIES OF THERMAL ENERGY CHARGE TRANSFER OF
CARBON, IRON, SULPHUR, AND NITROGEN IONS IN
 12/11/1997 – 12/31/1998 FY98: \$16,000 Total: \$16,000
Prin. Invest.: V H KWONG
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAGW 4279 UNIVERSITY OF NEVADA – LAS VEGAS **6698**
LABORATORY STUDIES OF THERMAL ENERGY CHARGE TRANSFER OF
SILICON AND IRON IONS IN ASTROPHYSICAL PLAS
 02/03/1995 – 12/31/1997 FY98: \$0 Total: \$47,999
Prin. Invest.: V H KWONG
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 – ASTRONOMY

NAS 5 31231 UNIVERSITY OF NEVADA – LAS VEGAS **6699**
STIS CO-INVESTIGATOR SUPPORT
 08/30/1991 – 09/30/2001 FY98: \$207,000 Total: \$525,301
Prin. Invest.: D WEISTROP
Tech. Officer: GSFC/D VITAGLIANO
CASE Category: 11 – ASTRONOMY

NGT 40042 UNIVERSITY OF NEVADA – LAS VEGAS **6700**
NGT-40042/UNIV NEVADA SYSTEM/NATIONAL SPACE GRANT COLLEGE
AND FELLOWSHIP PROGRAM
 05/29/1991 – 09/30/1997 FY98: \$0 Total: \$1,004,000
Prin. Invest.: J A GARDNER
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 4471 UNIVERSITY OF NEVADA – RENO **6701**
MARTIAN PALEOLAKE SEDIMENTS AND TERRESTRIAL ANALOG COV-
ERED LAKES
 06/17/1997 – 12/31/1998 FY98: \$90,829 Total: \$197,470
Prin. Invest.: D A WHARTON, JR.
Tech. Officer: GSFC/M MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 6664 UNIVERSITY OF NEVADA – RENO **6702**
LANDSAT PATHFINDER GLOBAL LAND COVER TEST SITES PROJECT
 12/10/1997 – 08/31/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: K MCGWIRE
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6881 UNIVERSITY OF NEVADA – RENO **6703**
NUMERICAL GEOMECHANICS STUDIES OF PLANETARY FAULTING
 02/27/1998 – 09/30/1998 FY98: \$55,687 Total: \$55,687
Prin. Invest.: R SCHULTZ
Tech. Officer: GSFC/P ROGERS
CASE Category: 11 – ASTRONOMY

NAGW 4151 UNIVERSITY OF NEVADA – RENO **6704**
STUDIES OF PLANETARY FAULTING
 09/28/1994 – 09/30/1998 FY98: \$0 Total: \$111,383
Prin. Invest.: R A SCHULTZ
Tech. Officer: HQ/R WILLIAMS
CASE Category: 32 – GEOLOGICAL SCIENCE

NCC 2 5119 UNIVERSITY OF NEVADA – RENO **6705**
SOLID PARTICLE DISPERSION AND COAGULATION EXPERIMENT
 03/08/1995 – 12/31/1997 FY98: \$0 Total: \$63,527
Prin. Invest.: C F ROGERS
Tech. Officer: ARC/M L FONDA
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NCC 3 548 UNIVERSITY OF NEVADA – RENO **6706**
AN INVESTIGATION INTO THE APPLICATION OF ACOUSTIC PYROMETRY
TO TURBINES
 03/10/1997 – 08/31/1998 FY98: \$0 Total: \$55,331
Prin. Invest.: J A KLEPPE
Tech. Officer: LERC/G C FRALICK
CASE Category: 45 – ELECTRICAL ENGR

NEW HAMPSHIRE

NAG 8 1209 DANIEL WEBSTER COLLEGE **6707**
JOVE
 09/25/1995 – 08/31/1998 FY98: \$0 Total: \$40,742
Prin. Invest.: D LOPEZ
Tech. Officer: MSFC/D SIX
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 663 DARTMOUTH COLLEGE **6708**
SUBORBITAL PROGRAM IN MAGNETOSPHERIC & IONOSPHERIC PHYS-
ICS
 03/28/1990 – 01/31/1999 FY98: \$0 Total: \$418,493
Prin. Invest.: J W LABELLE
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 – PHYSICS

NAG 5 1098 DARTMOUTH COLLEGE **6709**
THEORETICAL STUDY GLOBAL GEOSPACE SYSTEM
 11/01/1988 – 01/31/1998 FY98: \$0 Total: \$1,714,427
Prin. Invest.: M K HUDSON
Tech. Officer: GSFC/S A CURTIS, GSFC/M H ACUNA
CASE Category: 13 – PHYSICS

NAG 5 2252 DARTMOUTH COLLEGE 6710
MESOSCALE PROCESSES AT MAGNETOSPHERIC BOUNDARIES AND THEIR COUPLING TO THE IONOSPHERE
 05/12/1993 - 06/30/1999 FY98: \$282,000 Total: \$1,501,000
Prin. Invest.: W LOTKO
Tech. Officer: GSFC/T J BIRMINGHAM, GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 3212 DARTMOUTH COLLEGE 6711
A PRECISE POSITION FOR RU0042+32
 04/18/1996 - 10/31/1998 FY98: \$0 Total: \$1,993
Prin. Invest.: J THORSTENSEN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 3498 DARTMOUTH COLLEGE 6712
"RIVER FLOODING AND GLOBAL ENVIRONMENTAL CHANGE: A
 12/02/1996 - 11/14/1998 FY98: \$270,559 Total: \$539,484
Prin. Invest.: R BRACKENRIDGE
Tech. Officer: GSFC/M BALTUCK
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4094 DARTMOUTH COLLEGE 6713
PRIMORDIAL SOURCES OF GRAVITATIONAL RADIATION
 03/14/1997 - 12/31/1997 FY98: \$0 Total: \$35,000
Prin. Invest.: D GLEISER
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4178 DARTMOUTH COLLEGE 6714
GLOBAL FLOOD MONITORING AND ANALYSIS
 03/19/1997 - 03/30/1999 FY98: \$55,996 Total: \$109,838
Prin. Invest.: G BRACKENRIDGE
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4529 DARTMOUTH COLLEGE 6715
DISPERSIVE ALFVEN DYNAMICS OF THE MAGNETOSPHERE-IO
 05/09/1997 - 08/31/1999 FY98: \$13,992 Total: \$93,785
Prin. Invest.: D LOTKO
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4606 DARTMOUTH COLLEGE 6716
GLOBAL HELIOSPHERIC STRUCTURE AND DYNAMICS: DARTMO
 05/20/1997 - 02/28/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: D G LYON
Tech. Officer: GSFC/M A FORMAN
CASE Category: 11 - ASTRONOMY

NAG 5 4663 DARTMOUTH COLLEGE 6717
DATA ASSIMILATIVE ANALYSIS OF THE GGS DATA SET USI
 06/05/1997 - 05/31/1999 FY98: \$36,500 Total: \$71,500
Prin. Invest.: D G LYON
Tech. Officer: GSFC/D EVANS
CASE Category: 13 - PHYSICS

NAG 5 4889 DARTMOUTH COLLEGE 6718
SIMULATION OF THE DAYSIDE MAGNETOSPHERE AND MAGNET
 06/18/1997 - 04/30/1998 FY98: \$0 Total: \$73,400
Prin. Invest.: D G LYON
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 4943 DARTMOUTH COLLEGE 6719
INVESTIGATION OF EQUATORIAL SPREAD F ROCKET DATA
 06/23/1997 - 05/31/1999 FY98: \$0 Total: \$19,219
Prin. Invest.: D V LABELLE
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 5039 DARTMOUTH COLLEGE 6720
ELECTRIC FIELD ANALYSIS AND HIGH FREQUENCY MEASUREMENTS FOR THE AURORAL TURBULENCE II SOUNDING ROCK
 06/07/1995 - 12/31/1998 FY98: \$0 Total: \$201,183
Prin. Invest.: J V LABELLE
Tech. Officer: GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 6268 DARTMOUTH COLLEGE 6721
AUTOMATED ANALYSIS OF REMOTELY-SENSED 2D MAGNETOPA
 08/21/1997 - 07/31/1999 FY98: \$16,468 Total: \$79,475
Prin. Invest.: D O SONNERUP
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6427 DARTMOUTH COLLEGE 6722
MAGNETIC STORM EFFECTS ON PARTICLE ENERGIZATION IN THE MAGNETOSPHERE
 10/07/1997 - 04/30/1999 FY98: \$46,000 Total: \$46,000
Prin. Invest.: M HUDSON
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 6439 DARTMOUTH COLLEGE 6723
DETAILED QUANTITATIVE COMPARISON BETWEEN GLOBAL MHD SIMULATION RESULT AND MULTIPOINT SPACECRAFT OB
 10/31/1997 - 04/31/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: J LYON
Tech. Officer: GSFC/D BOHLIN
CASE Category: 11 - ASTRONOMY

NAG 5 6613 DARTMOUTH COLLEGE 6724
PRIMORDIAL SOURCES OF GRAVITATIONAL RADIATION
 02/12/1998 - 12/31/1998 FY98: \$21,000 Total: \$21,000
Prin. Invest.: D GLEISER
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 7185 DARTMOUTH COLLEGE 6725
APPROXIMATELY TWO-DIMENSIONAL, COHERENT STRUCTURES IN SPACE PLASMAS: THE INVERSE PROBLEM
 03/25/1998 - 03/31/2001 FY98: \$69,510 Total: \$69,510
Prin. Invest.: B U SONNERUP
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

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| NAG 5 7442 DARTMOUTH COLLEGE 6726 A THEORETICAL STUDY OF THE GLOBAL GEOSPACE SYSTEM 06/02/1998 – 09/30/1999 FY98: \$250,000 Total: \$250,000 Prin. Invest.: M HUDSON Tech. Officer: GSFC/S CURTIS CASE Category: 19 – PHYSICAL SCIENCE, OTHER | NAGW 4728 DARTMOUTH COLLEGE 6734 MAGNETIC STORMS EFFECTS ON PARTICLE ENERGIZATION IN THE MAGNETOSPHERE 09/05/1995 – 08/31/1997 FY98: \$0 Total: \$86,000 Prin. Invest.: M K HUDSON Tech. Officer: HQ/R A HOFFMAN, HQ/J D BOHLIN CASE Category: 13 – PHYSICS |
| NAG 5 7689 DARTMOUTH COLLEGE 6727 NONADIABATIC CHANGES IN RADIATION BELT POPULATIONS 09/14/1998 – 09/30/2001 FY98: \$71,000 Total: \$71,000 Prin. Invest.: M K HUDSON Tech. Officer: GSFC/D EVANS CASE Category: 11 – ASTRONOMY | NAGW 5137 DARTMOUTH COLLEGE 6735 AUTOMATED ANALYSIS OF REMOTELY-SENSED 2D MAGNETOPA USE STRUCTURES 07/24/1996 – 07/31/1997 FY98: \$0 Total: \$60,274 Prin. Invest.: B O SONNERUP Tech. Officer: HQ/J D BOHLIN, HQ/G L WITHBROE CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NAG 8 1359 DARTMOUTH COLLEGE 6728 R/S "HETEROZYGOUS ATAXIA-TELANGEICTASIA HUMAN MAMMARY CELLS AS A MICROGRAVITY BASED MODEL 06/18/1997 – 11/30/1997 FY98: \$0 Total: \$64,000 Prin. Invest.: R RICHMOND Tech. Officer: JSC/S GONDA CASE Category: 59 – LIFE SCIENCE, OTHER | NAS 9 19572 DARTMOUTH COLLEGE 6736 NEUROLAB MISSION SUPPORT SERVICES 09/12/1996 – 12/31/1998 FY98: \$92,100 Total: \$367,100 Prin. Invest.: J C BUCKEY Tech. Officer: JSC/L K NEWKIRK CASE Category: 59 – LIFE SCIENCE, OTHER |
| NAGW 2656 DARTMOUTH COLLEGE 6729 TIDAL COUPLING IN THE IONOSPHERE 07/15/1991 – 08/31/1997 FY98: \$0 Total: \$217,646 Prin. Invest.: C G FESEN Tech. Officer: HQ/M M MELLOTT, HQ/J D BOHLIN CASE Category: 49 – ENGINEERING, OTHER | NGT 51657 DARTMOUTH COLLEGE 6737 GRAD STUD RES PROG 08/20/1996 – 09/30/1997 FY98: \$0 Total: \$22,000 Prin. Invest.: M HUDSON Tech. Officer: HQ/D HOLLAND CASE Category: 13 – PHYSICS |
| NAGW 3227 DARTMOUTH COLLEGE 6730 SOIL CARBON INVENTORY AND CARBON FLUX RESPONSES TO LANDUSE CHANGE, NORTHERN NEW ENGLAND 10/26/1992 – 07/31/1997 FY98: \$0 Total: \$366,979 Prin. Invest.: R BRAKENRIDGE Tech. Officer: HQ/M BALTUCK CASE Category: 32 – GEOLOGICAL SCIENCE | NGT 5 50059 DARTMOUTH COLLEGE 6738 A STUDY OF SUBSTORM RELATED PULSATIONS IN THE EART 07/25/1997 – 12/30/1998 FY98: \$0 Total: \$22,000 Prin. Invest.: M HUDSON Tech. Officer: GSFC/A NURRIDIN CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NAGW 3989 DARTMOUTH COLLEGE 6731 OBLIQUE ALFVEN DYNAMICS OF THE PLASMA SHEET IONO- SPHERE INTERACTION 05/13/1994 – 08/31/1997 FY98: \$0 Total: \$215,445 Prin. Invest.: W LOTKO Tech. Officer: HQ/M M MELLOTT, HQ/J D BOHLIN CASE Category: 13 – PHYSICS | NGT 5 50093 DARTMOUTH COLLEGE 6739 SOUNDING ROCKET BASED INVESTIGATIONS OF AURORAL HI GRADUATE STUDENT RESEARCHERS PROGRAM 08/21/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: LABELLE Tech. Officer: HQ/A NURRIDIN CASE Category: 11 – ASTRONOMY |
| NAGW 4003 DARTMOUTH COLLEGE 6732 THE ROLE OF HYDROTHERMAL PROCESSES IN SHAPING 05/17/1994 – 02/28/1997 FY98: \$0 Total: \$49,000 Prin. Invest.: G R BRAKENRIDGE Tech. Officer: HQ/R WILLIAMS CASE Category: 32 – GEOLOGICAL SCIENCE | NGT 5 50153 DARTMOUTH COLLEGE 6740 SIMULATION OF THE CAVITY MODE STRUCTURE OF THE INN DIPOLE GEOMETRY/JERRY GOLDSTEIN 09/11/1997 – 09/30/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: M HUDSON Tech. Officer: HQ/A NURRIDIN CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NAGW 4270 DARTMOUTH COLLEGE 6733 PRIMORDIAL SOURCES OF GRAVITATIONAL RADIATION 01/31/1995 – 12/31/1996 FY98: \$0 Total: \$70,000 Prin. Invest.: M GLEISER Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER CASE Category: 11 – ASTRONOMY | NAG 1 1233 UNIVERSITY OF NEW HAMPSHIRE – DURHAM 6741 MEASUREMENTS OF NITRIC ACID, CARBOXYLIC ACIDS, AND SELECTED AEROSOL SPECIES FOR THE NASA/GTE PACIFIC 04/09/1991 – 05/31/1997 FY98: -\$32 Total: \$849,060 Prin. Invest.: R W TALBOT, J E DIBB, O KLEMM Tech. Officer: LARC/J M HOELL, LARC/B ANDERSON CASE Category: 43 – CHEMICAL ENGR |

NAG 1 1761 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6742**
MEASUREMENTS OF ACIDIC GASES AND AEROSOL SPECIES ABOARD
THE NASA DC-8 AIRCRAFT DURING PEM-TROPICS
 09/29/1995 - 09/30/1998 FY98: \$0 Total: \$357,353
Prin. Invest.: D W TALBOT, D E DIBB
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1027 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6743**
ATMOSPHERIC AEROSOL CHEMICAL COMPOSITION MEASUREMENTS
FOR THE SUBSONIC AIRCRAFT: CONTRAIL & CLOUD.
 02/22/1996 - 01/14/1998 FY98: \$0 Total: \$117,812
Prin. Invest.: R W TALBOT, J E DIBB
Tech. Officer: ARC/E P CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1101 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6744**
MEASUREMENT OF NITRIC & AEROSOL SPECIES ABOARD THE NASA DC-8
AIRCRAFT DURING THE SASS OZONE &.....
 01/13/1997 - 12/31/1998 FY98: \$76,659 Total: \$335,903
Prin. Invest.: R TALBOT
Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1599 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6745**
SUITABILITY OF ELECTRIC FIELD & PARTICLE MEASUREMENT FOR TRO-
PIX-LIKE MISSION
 06/01/1994 - 05/31/1997 FY98: -\$7,728 Total: \$2,452
Prin. Invest.: R B TORBERT
Tech. Officer: LERC/J M HICKMAN
CASE Category: 13 - PHYSICS

NAG 5 692 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6746**
SOUNDING OF THE CLEFT ION FOUNDATION ENERGIZATION REGION
 05/26/1992 - 05/31/1997 FY98: \$0 Total: \$405,400
Prin. Invest.: R ARNOLDY
Tech. Officer: WFF/L J EARLY, WFF/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 720 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6747**
RESEARCH RELATIVE TO THE SMM GAMMA-RAY EXPERIMENT
 11/15/1985 - 11/14/1998 FY98: \$0 Total: \$3,398,839
Prin. Invest.: D J FORREST
Tech. Officer: GSFC/F GORDON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 1479 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6748**
THEORETICAL STUDIES ON THE CHROMOSPHERE, CORONA, AND SOLAR
WIND
 11/26/1990 - 03/14/1999 FY98: \$334,000 Total: \$2,546,230
Prin. Invest.: J V HOLLWEG, M A LEO
Tech. Officer: GSFC/T J BIRMINGHAM
CASE Category: 13 - PHYSICS

NAG 5 1561 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6749**
PROBING SOLAR PARTICLE ACCELERATION DURING THE 22ND SOLAR
MAXIMUM WITH GROUSSE
 04/17/1991 - 12/31/1996 FY98: \$0 Total: \$337,024
Prin. Invest.: W T VESTRAND
Tech. Officer: GSFC/J P NORRIS, GSFC/D A KNIFFEN
CASE Category: 11 - ASTRONOMY

NAG 5 2289 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6750**
MAGNITUDE AND CONTROL OF TRACT GAS EXCHANGE IN BOR EAL OCE-
SYSTEMS
 06/14/1993 - 07/14/1999 FY98: \$0 Total: \$494,569
Prin. Invest.: P M CRILL
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2290 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6751**
MODELING CLIMATE-BIOSPHERE INTERACTIONS IN THE BOR EAL FOR-
EST
 06/14/1993 - 06/14/1998 FY98: \$0 Total: \$258,000
Prin. Invest.: R C HARRISS
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2350 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6752**
DETERMINING THE CHARACTERISTICS OF SOLAR MICROFLARES WITH
BATSE
 08/12/1993 - 02/28/1998 FY98: \$0 Total: \$273,326
Prin. Invest.: J M RYAN
Tech. Officer: GSFC/J NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2388 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6753**
INVESTIGATION OF BATSE SENSITIVITY TO POLARIZED GAMMA-RADI-
ATION
 10/06/1993 - 10/4/1996 FY98: -\$2,328 Total: \$52,635
Prin. Invest.: M L MCCONNELL
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2420 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6754**
USE OF EGRET HIGH ENERGY CAPABILITY TO INVESTIGATE ENERGETIC
SOLAR FLARE PROCESSES
 11/06/1993 - 11/14/1998 FY98: \$0 Total: \$77,296
Prin. Invest.: E C UPP, D L BERTSCH
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2834 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6755**
PARTICIPATION IN THE MISSION OPERATIONS AND DATA ANALYSIS
PHASE OF THE UGWS/WIND MISSION
 12/12/1994 - 06/30/1998 FY98: \$0 Total: \$598,150
Prin. Invest.: R B TORBERT
Tech. Officer: GSFC/K W OGILVIE
CASE Category: 13 - PHYSICS

NAG 5 3157 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6756**
MULTIWAVELENGTH SEARCH FOR CORRELATED TIME VARIATIONS IN THE
BRIGHTEST EGRET BLAZARS.....
 01/23/1996 - 01/31/1998 FY98: \$0 Total: \$71,223
Prin. Invest.: W T VESTRAND
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3440 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6757**
ACQUISITION AND ANALYSIS OF LARGE QUANTITIES OF LANDSAT-7
DATA FOR MEASURING TROPICAL LAND COVER.
 10/07/1996 – 02/28/1998 FY98: \$0 Total: \$217,235
Prin. Invest.: D SKOLE
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3518 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6758**
CHARACTERIZATION OF SOLAR FLARE PROTON SPECTRAL US
 11/25/1996 – 11/14/1998 FY98: \$0 Total: \$24,982
Prin. Invest.: E L CHUPP
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3527 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6759**
ASSESSING THE EFFECTS OF HISTORICAL LAND USE ON FO RESPONSE
TO CLIMATE CHANGE AND CO2: A REMOTE SENS
 11/18/1996 – 11/14/1998 FY98: \$180,552 Total: \$380,338
Prin. Invest.: M MARTIN
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3671 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6760**
CONTINUED STUDIES OF SOUTHERN HEMISPHERE GAMMA-RAY PAR-
ADIGMS FOR TWO BLAZAR PROTOTYPES
 01/02/1997 – 11/31/1998 FY98: \$45,000 Total: \$92,995
Prin. Invest.: W VESTRAND
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3747 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6761**
MAXWELL, FARADAY, AND VLASOV: 3 DIRECT MEASUREMENT
 03/10/1997 – 03/14/1999 FY98: \$0 Total: \$60,872
Prin. Invest.: D A LYNCH
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 – PHYSICS

NAG 5 3815 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6762**
COORDINATED X-RAY OBSERVATIONS OF THE GAMMA-RAY BL AND PKS
0208-512
 01/24/1997 – 01/31/1999 FY98: \$0 Total: \$22,900
Prin. Invest.: T W VESTRAND
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3857 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6763**
MAPPING THE AGE OF SECONDARY TROPICAL FORESTS USING
ANCILLARY DATA
 12/19/1996 – 12/14/1997 FY98: \$0 Total: \$25,498
Prin. Invest.: D SKOLE, NONE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3893 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6764**
PRE-LAUNCH EQUATOR-S EFFORT
 02/11/1997 – 02/14/1998 FY98: \$0 Total: \$75,000
Prin. Invest.: R B TORBERT
Tech. Officer: GSFC/M HESSE
CASE Category: 13 – PHYSICS

NAG 5 3978 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6765**
BOREAL FOREST WATCH: A BOREAS OUTREACH PROGRAM
 03/03/1997 – 01/31/1999 FY98: \$0 Total: \$61,758
Prin. Invest.: B N ROCK
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4407 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6766**
PRE-LAUNCH EQUATOR-S EFFORT
 05/07/1997 – 05/14/1998 FY98: \$0 Total: \$65,000
Prin. Invest.: R B TORBERT
Tech. Officer: GSFC/M HESSE
CASE Category: 13 – PHYSICS

NAG 5 4408 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6767**
PRE-LAUNCH EQUATOR-S EFFORT
 05/21/1997 – 05/14/1998 FY98: \$0 Total: \$75,002
Prin. Invest.: L M KISTLER
Tech. Officer: GSFC/M HESSE
CASE Category: 13 – PHYSICS

NAG 5 4458 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6768**
MAGNETOTAIL-IONOSPHERE COUPLING
 05/14/1997 – 04/30/1999 FY98: \$0 Total: \$63,900
Prin. Invest.: D L KAUFMANN
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 – PHYSICS

NAG 5 4616 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6769**
HUMAN DIMENSIONS OF DEFORESTATION & REGROWTH IN THE INTEGRAT-
ING DATA FROM SATELLITES, DEMOGRAPHIC CENS
 05/21/1997 – 05/14/1999 FY98: \$0 Total: \$253,000
Prin. Invest.: D SKOLE
Tech. Officer: GSFC/N MAYNARD
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4695 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6770**
TRANSPORT OF ENERGETIC IONS IN THE RING CURRENT DURING
 06/17/1997 – 05/14/1999 FY98: \$28,417 Total: \$87,417
Prin. Invest.: D M KISTLER
Tech. Officer: GSFC/D EVANS
CASE Category: 13 – PHYSICS

NAG 5 4772 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6771**
WAVE ACCELERATION OF AURORAL IONS; AMICIST DATA SET
 06/09/1997 – 12/31/1998 FY98: \$0 Total: \$34,155
Prin. Invest.: D A LYNCH
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 – PHYSICS

NAG 5 4785 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6772**
AN INTEGRATED SYSTEM FOR WATER BUDGET CLOSURE OVER MASS: A
TRMM VALIDATION EFFORT
 07/03/1997 – 06/30/1999 FY98: \$58,000 Total: \$115,000
Prin. Invest.: C VOROSMARTY
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4815 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6773**
CASE STUDIES AND DIAGNOSTIC MODELS OF THE INTER-AN DEFORESTATION IN SOUTHEASTASIA
 06/24/1997 - 10/31/1998 FY98: -\$235,000 Total: \$0
Prin. Invest.: D SKOLE
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4818 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6774**
STUDIES OF INTERSTELLAR PICKUP IONS IN THE SOLAR W
 06/18/1997 - 09/30/1998 FY98: \$5,002 Total: \$80,002
Prin. Invest.: D A ISENBERG
Tech. Officer: GSFC/J A LING
CASE Category: 11 - ASTRONOMY

NAG 5 4856 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6775**
MAGNETIC RECONNECTION IN SOLAR FLARES
 07/15/1997 - 05/14/2000 FY98: \$38,500 Total: \$119,500
Prin. Invest.: D G FORBES
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 5007 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6776**
AMICIST NEW AWARD
 05/12/1993 - 12/31/1998 FY98: \$0 Total: \$587,195
Prin. Invest.: R ARNOLDY
Tech. Officer: GSFC/LJ EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5033 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6777**
AURORAL TURBULENCE II FIRST YEAR OF A THREE-YEAR EFFORT IN BASIC
 04/12/1995 - 04/30/1999 FY98: \$39,465 Total: \$514,665
Prin. Invest.: R B TORBERT
Tech. Officer: GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5040 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6778**
DUST DETECTOR
 07/27/1995 - 12/31/1998 FY98: \$0 Total: \$151,640
Prin. Invest.: K A LYNCH
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5057 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6779**
A CO-INVESTIGATOR PROPOSAL FOR CORNELL UNIVERSITY CAPER
 06/25/1996 - 05/31/1999 FY98: \$129,340 Total: \$409,705
Prin. Invest.: R ARNOLDY
Tech. Officer: GSFC/L W GURKIN
CASE Category: 13 - PHYSICS

NAG 5 5117 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6780**
THE TIGRE INSTRUMENT FOR INTERMEDIATE-ENERGY GAMMA-RAY ASTRONOMY FOR 0.3 TO 100MEV
 04/18/1997 - 01/31/1999 FY98: \$50,000 Total: \$100,410
Prin. Invest.: J RYAN
Tech. Officer: GSFC/H NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5124 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6781**
ENSTROPY - FILAMENTATION OF AURORAL CURRENTS
 03/10/1997 - 01/31/1999 FY98: \$311,620 Total: \$331,620
Prin. Invest.: K LYNCH
Tech. Officer: GSFC/B FLOWERS
CASE Category: 13 - PHYSICS

NAG 5 5147 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6782**
MINUTE OF ARC RESOLUTION GAMMA-RAY IMAGING EXPERIMENT (MARGIE)
 07/02/1997 - 11/30/1998 FY98: -\$83,000 Total: \$50,000
Prin. Invest.: J RYAN
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5157 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6783**
"OTOLLITH-CALVAL CONVERGENCE IN VESTIBULAR NUCLEI N
 07/21/1997 - 04/10/1999 FY98: \$0 Total: \$43,657
Prin. Invest.: W T VESTRAND
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 5192 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6784**
MONITORING INITIAL STAGES OF FOREST RECOVERY IN THE CZECH REPUBLIC
 07/18/1997 - 07/31/1999 FY98: \$159,340 Total: \$305,352
Prin. Invest.: B ROCK
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5212 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6785**
ULDB COMPTON TELESCOPE MISSION
 09/22/1998 - 12/31/1999 FY98: \$28,960 Total: \$28,960
Prin. Invest.: J M HILYAN
Tech. Officer: WFI/B A MERRITT
CASE Category: 1 - ASTRONOMY

NAG 5 6115 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6786**
THE BIO-ATMOSPHERIC CYCLES OF NITROGEN AND CARBON: POLLUTION AND TERRISTRIAL
 07/28/1997 - 07/31/1999 FY98: \$35,895 Total: \$70,081
Prin. Invest.: B BRASWELL
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6137 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6787**
TRANSFER FUNDS TO UNIVERSITY OF NEW HAMPSHIRE IN S ENTITLED: CHANGES IN BIOGEOCHEMICAL CYCLES
 08/11/1997 - 05/31/1999 FY98: \$1,742,500 Total: \$3,676,073
Prin. Invest.: B MORE, III
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6289 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6788**
DEVELOPMENT OF A PARTICLE BACKSCATTERING ALGORITHM CONCURRENT SHIP MEASUREMENTS, AND GLOBAL BIOGEOCH
 09/10/1997 - 08/31/1999 FY98: \$95,390 Total: \$186,774
Prin. Invest.: J W CAMPBELL
Tech. Officer: GSFC/J A YODER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6452 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6789**
SATELLITE-BASED SYSTEMS FOR MONITORING BIOGEOCHEMICAL FLUXES BETWEEN THE CONTINENTAL LAND MASS AND C
 11/04/1997 – 09/30/1999 FY98: \$342,101 Total: \$342,101
Prin. Invest.: C VOROSMARTY
Tech. Officer: GSFC/J A YODER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6453 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6790**
ATMOSPHERIC IMPACTS OF AGRICULTURE: INTEGRATION OF REMOTE SENSING AND BIOGEOCHEMICAL MODELS FOR T
 11/18/1997 – 08/31/1999 FY98: \$159,856 Total: \$159,856
Prin. Invest.: C LI
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6599 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6791**
CENTERS OF EXCELLENCE IN APPLICATIONS OF REMOTE SENSING TO REGIONAL GLOBAL INTEGRATED ENVIRONMENTAL
 12/09/1997 – 11/14/1998 FY98: \$396,690 Total: \$396,690
Prin. Invest.: B MOORE
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6623 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6792**
RADAR-BASED MEASURE OF INTERANNUAL VEGETATION PHENOLOGY FOR MONITORING GLOBAL CHANGES RESPONSES OF
 11/19/1997 – 11/30/1998 FY98: \$26,921 Total: \$26,921
Prin. Invest.: S FROLKING, NONE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6793 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6793**
LIFE, FROM LOCAL ORIGINS TO GLOBAL PERSISTENCE
 02/18/1998 – 12/31/1998 FY98: \$105,162 Total: \$105,162
Prin. Invest.: B MOORE
Tech. Officer: GSFC/M MEYER
CASE Category: 99 – MULTIDISCIPL, OTHER

NAG 5 6860 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6794**
WIND/SWE CONTINUED INVESTIGATIONS
 02/17/1998 – 01/14/1999 FY98: \$179,230 Total: \$179,230
Prin. Invest.: R TORBERT
Tech. Officer: GSFC/K OGILVIE
CASE Category: 13 – PHYSICS

NAG 5 6862 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6795**
ESTIMATION OF SUPERNOVA RATES FROM COMPTEL OBSERVATIONS
 02/17/1998 – 01/31/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: D J MORRIS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 6863 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6796**
EXPLORING THE GAMMA-RAY SKY AT 2.2 MEV
 02/17/1998 – 02/28/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: M L MCCONNELL
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 6864 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6797**
POINTED OBSERVATIONS AND RE-ANALYSIS OF EXISTING COMPTEL DATA ON PSRB1509-58; COMPTEL RAPID BUR
 02/17/1998 – 01/31/1999 FY98: \$15,000 Total: \$15,000
Prin. Invest.: A CONNORS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 6925 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6798**
GRANT
 02/04/1998 – 01/31/1999 FY98: \$267,090 Total: \$267,090
Prin. Invest.: L M KISTLER
Tech. Officer: GSFC/M HESSE
CASE Category: 13 – PHYSICS

NAG 5 6935 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6799**
GRANT
 02/04/1998 – 01/31/1999 FY98: \$248,710 Total: \$248,710
Prin. Invest.: R B TORBERT
Tech. Officer: GSFC/M HESSE
CASE Category: 13 – PHYSICS

NAG 5 6992 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6800**
BROAD-BAND MEASUREMENTS OF CEN X-3 WITH XTE AND CGRO XTE-PROPOSAL
 02/06/1998 – 02/14/1999 FY98: \$15,000 Total: \$15,000
Prin. Invest.: T VESTRAND
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7052 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6801**
NEW TECHNOLOGY CDZNT DETECTORS FOR HIGH-ENERGY FLARE SPECTROSCOPY: THEROOMTEMPERATURE SEMICONDUCTOR
 03/16/1998 – 06/30/2000 FY98: \$149,000 Total: \$149,000
Prin. Invest.: D VESTRANK
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 7095 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6802**
SCALING PEATLAND CO₂ AND CH₄ FLUXES FROM CHAMBERS TO THE BOREAS NORTH-ERN AND SOUTHERN STUDY AREAS
 05/21/1998 – 04/30/2000 FY98: \$108,385 Total: \$108,385
Prin. Invest.: S FROLKING
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7097 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6803**
STUDIES OF INTERSTELLAR PICKUP IONS IN THE SOLAR WIND
 06/05/1998 – 10/31/1998 FY98: \$75,000 Total: \$75,000
Prin. Invest.: P A ISENBERG
Tech. Officer: GSFC/J LING
CASE Category: 11 – ASTRONOMY

NAG 5 7118 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6804**
ENERGETIC PARTICLE ACCELERATION IN X-RAY BINARIES: JOINT X-RAY AND GAMMA-RAY O
 04/13/1998 – 04/14/1999 FY98: \$7,355 Total: \$7,355
Prin. Invest.: T VESTRAND
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7178 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6805**
COMPTON ANALYSIS OF THE COSMIC DIFFUSE GAMMA RADIATION
 03/25/1998 - 03/31/1999 FY98: \$15,000 Total: \$15,000
Prin. Invest.: J M RYAN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7179 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6806**
CONTINUED STUDIES AND A REPROCESSING OF BATSE SOLAR MICRO-FLARE DATA
 03/25/1998 - 03/31/1999 FY98: \$15,000 Total: \$15,000
Prin. Invest.: J M RYAN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7241 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6807**
XTE PROPOSAL - A COUNTERPART SEARCH FOR A SOURCE OF 2.2 MEV GAMMA-RAYS
 04/14/1998 - 04/14/1999 FY98: \$5,220 Total: \$5,220
Prin. Invest.: M L MCCONNELL
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7294 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6808**
SOLPOL - A SOLAR POLARIMETER FOR HARD X-RAYS AND GAMMA RAYS
 04/15/1998 - 04/14/1999 FY98: \$118,000 Total: \$118,000
Prin. Invest.: M L MCCONNELL
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7368 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6809**
STUDY OF RING CURRENT DYNAMICS DURING GEOMAGNETIC STORMS
 05/06/1998 - 05/31/1999 FY98: \$14,000 Total: \$14,000
Prin. Invest.: V K JORDANOVA
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 5 7601 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6810**
DEVELOPMENT OF SPACE-BASED TECHNIQUES FOR MEASURING
 07/24/1998 - 07/14/1999 FY98: \$89,532 Total: \$89,532
Prin. Invest.: L D DINGMAN
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7631 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6811**
QUANTIFYING THE ATMOSPHERIC IMPACTS OF PADDY RICE AGRICULTURE IN CHINA
 08/10/1998 - 09/30/2001 FY98: \$134,000 Total: \$134,000
Prin. Invest.: C LI
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 1245 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6812**
SPECTROCHARACTERIZATION OF FOREST DECLINE DAMAGE
 04/13/1988 - 12/31/1996 FY98: -\$966 Total: \$854,380
Prin. Invest.: B N ROCK
Tech. Officer: HQ/D E WICKLAND, HQ/M J RUZEK
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 2579 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6813**
STUDIES OF INTERSTELLAR PICKUP IONS IN THE SOLAR WIND
 06/26/1991 - 10/31/1997 FY98: -\$28 Total: \$384,572
Prin. Invest.: P A SENBERG
Tech. Officer: HQ/N V JONES
CASE Category: 13 - PHYSICS

NAGW 2669 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6814**
CHANGES IN BIOGEOCHEMICAL CYCLES: EXECUTION PHASES
 09/03/1991 - 06/30/1998 FY98: \$0 Total: \$9,039,208
Prin. Invest.: B MCORE
Tech. Officer: HQ/RE MURPHY, HQ/W S WILSON
CASE Category: 19 - ENVIRONMENTAL SCI, OTHER

NAGW 2697 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6815**
ELECTRON BEAM EXPERIMENT COLLABORATION
 09/03/1991 - 09/30/1996 FY98: -\$48 Total: \$238,192
Prin. Invest.: C KLITZING, R B TORBERT
Tech. Officer: HQ/EC WHIPPLE, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 3185 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6816**
LANDSAT PATHFINDER STREAM 1: TROPICAL DEFORESTATION MAPPING
 08/28/1992 - 09/30/1997 FY98: -\$11 Total: \$2,827,145
Prin. Invest.: B M MOORE, D L SKOLE
Tech. Officer: HQ/NE MAIDEN, HQ/D M BUTLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 3463 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6817**
CHROMOSPHERIC EVAPORATION IN MAGNETIC RECONNECTION MODELS OF SOLAR FLARES
 03/23/1993 - 03/31/1997 FY98: -\$121 Total: \$135,448
Prin. Invest.: T G FORBES
Tech. Officer: HQ/M J WAGNER, HQ/J D BOHLIN
CASE Category: 11 - PHYSICS

NAGW 3676 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6818**
A STUDY OF THE ELECTRON DRIFT INSTRUMENT ON EQUATOR-S
 07/13/1993 - 04/30/1997 FY98: \$0 Total: \$998,935
Prin. Invest.: R B TORBERT
Tech. Officer: HQ/EC WHIPPLE, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 3720 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6819**
NEW PRODUCTION IN THE NORTH ATLANTIC DERIVED FROM SEASONAL PATTERNS IN SEA WIFS DATA
 09/14/1993 - 06/30/1997 FY98: \$0 Total: \$501,953
Prin. Invest.: J W CAMPBELL
Tech. Officer: HQ/RE MURPHY, HQ/D M BUTLER
CASE Category: 33 - OCEANOGRAPHY

NAGW 3723 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6820**
STUDY OF THE EQUATORIAL MAGNETOSPHERE WITH A TIME-OF-FLIGHT MASS SPECTROMETER
 09/07/1993 - 09/30/1997 FY98: \$0 Total: \$410,901
Prin. Invest.: E MOBIUS
Tech. Officer: HQ/EC WHIPPLE, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 3761 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6821**
DESIGN AND DEVELOPMENT FOR A MINUTE OF ARC GAMMA RAY IMAGING EXPERIMENT
 10/28/1993 – 09/30/1997 FY98: –\$41 Total: \$214,929
Prin. Invest.: J RYAN
Tech. Officer: HQ/L J KALUZIENSKI, HQ/A N BUNNER
CASE Category: 11 – ASTRONOMY

NAGW 3774 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6822**
CONTROL OF METHANE PRODUCTION AND EXCHANGE IN NORTHERN PEATLANDS
 10/01/1993 – 06/30/1997 FY98: \$0 Total: \$336,000
Prin. Invest.: P M CRILL
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 3980 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6823**
LOCALIZED IONOSPHERIC PARTICLE ACCELERATION
 05/25/1994 – 09/30/1997 FY98: –\$150 Total: \$93,370
Prin. Invest.: K LYNCH
Tech. Officer: HQ/M M MELLOTT, HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4416 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6824**
FLOODPLAIN AND RIVER DYNAMICS IN THREE LARGE SOUTH AMERICAN RIVERS: AN INTEGRATION OF REMOTE SENSING
 04/20/1995 – 09/30/1997 FY98: –\$49 Total: \$137,156
Prin. Invest.: C J VOROSMARTY, J M MELACK, C J WILLMOTT
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4518 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6825**
DINETIC ALFVEN WAVE ELECTRON ACCELERATION ON AURORAL FIELDS LINES
 05/26/1995 – 04/30/1998 FY98: \$0 Total: \$53,635
Prin. Invest.: C KLETZING
Tech. Officer: HQ/D BOHLIN
CASE Category: 13 – PHYSICS

NAGW 4695 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6826**
HUMAN DIMENSIONS OF DEFORESTATION & REGROWTH IN THE BRAZILIAN AMAZON: INTEGRATING DATA FROM SATELLITE
 08/18/1995 – 09/30/1997 FY98: –\$6 Total: \$109,994
Prin. Invest.: D SKOLE, S SANDERSON, C WOOD
Tech. Officer: HQ/N MAYNARD, HQ/R C HARRISS
CASE Category: 79 – SOCIAL SCIENCE, OTHER

NAGW 4706 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6827**
GLOBAL ANALYSIS INTERPRETATION AND MODELLING: DEVELOPING AN EARTH SYSTEMS MODELLING PROGRAM
 08/24/1995 – 09/30/1997 FY98: –\$96 Total: \$376,253
Prin. Invest.: B MOORE
Tech. Officer: HQ/M Y WEI, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4783 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6828**
HIGH SPECTRAL RESOLUTION REMOTE SENSING OF FOLIAR CHEMISTRY AND SPECIES COMPOSITION
 09/22/1995 – 09/30/1998 FY98: \$0 Total: \$41,851
Prin. Invest.: M E MARTIN, J D ABER
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4802 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6829**
METHOD COMPARISON FOR THE ESTIMATION OF FOLIAR CHEMISTRY FROM HIGH SPECTRAL RESOLUTION VISIBLE AND
 10/03/1995 – 02/28/1997 FY98: –\$10,915 Total: \$174,919
Prin. Invest.: M E MARTIN, J D ABER
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4920 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6830**
USE OF SAR FOR MONITORING DEFORESTATION AND SECONDARY GROWTH IN THE TROPICS
 02/05/1996 – 09/30/1997 FY98: –\$7 Total: \$47,324
Prin. Invest.: D SKOLE
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NAGW 5028 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6831**
CHANGES IN BIOGEOCHEMICAL CYCLES
 04/11/1996 – 09/30/1997 FY98: –\$361 Total: \$240,772
Prin. Invest.: B MOORE, III
Tech. Officer: HQ/A C JANETOS, HQ/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 5074 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6832**
THE DEVELOPMENT OF A SOLAR FLARE HARD X-RAY/GAMMA-RAY POLARIMETER
 05/21/1996 – 05/31/1998 FY98: \$0 Total: \$84,200
Prin. Invest.: M L MCCONNELL
Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE
CASE Category: 11 – ASTRONOMY

NAGW 5076 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6833**
DEMONSTRATION OF SONTRAC PRINCIPLES — A SOLAR NEUTRON TRACK CHAMBER TELESCOPE
 05/23/1996 – 09/30/1997 FY98: –\$1 Total: \$86,999
Prin. Invest.: J M RYAN
Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE
CASE Category: 11 – ASTRONOMY

NAGW 5140 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6834**
TIME-IN-FLIGHT MASS SPECTROGRAPH WITH INSTANTANEOUS COVERAGE OF THE FULL ENERGY RANGE
 07/31/1996 – 09/30/1997 FY98: –\$111 Total: \$56,489
Prin. Invest.: E MOBIUS
Tech. Officer: HQ/J D BOHLIN, HQ/G L WITHBROE
CASE Category: 11 – ASTRONOMY

NAGW 5146 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6835**
SPECTROSCOPIC ACTIVITY THE EXCITING NEWS FROM SPACE – NEW TECH CDZNETE DETECTORS FOR HIGH ENERGY FLARE SPECTRA
 08/30/1996 – 09/30/1997 FY98: \$0 Total: \$138,000
Prin. Invest.: W VESTRAND
Tech. Officer: HQ/W J WAGNER, HQ/G L WITHBROE
CASE Category: 99 – MULTIDISCIPLINARY, OTHER

NAGW 5148 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6836**
TRANSPORT OF ENERGETIC IONS IN THE RING CURRENT DURING GEOMAGNETIC STORMS
 08/23/1996 – 09/30/1997 FY98: \$0 Total: \$56,700
Prin. Invest.: L KISTLER
Tech. Officer: HQ/J D BOHLIN, HQ/G L WITHBROE
CASE Category: 99 – MULTIDISCIPLINARY, OTHER

NAGW 5161 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6837**
ATMOSPHERIC IMPACT OF AGRICULTURE: INTEGRATION OF REMOTE SENSING AND BIOGEOCHEMICAL MODELS
 09/09/1996 - 02/28/1998 FY98: \$0 Total: \$108,843
Prin. Invest.: C LI, W J EMERY
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5251 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6838**
NET CARBON BALANCE FOR THE BRAZILIAN AMAZON
 10/29/1996 - 09/30/1997 FY98: -\$1 Total: \$84,489
Prin. Invest.: D L SKOLE
Tech. Officer: HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 26645 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6839**
DEFINITION PHASE OF THE DETECTOR SUBSYSTEM FOR THE COMPEL
 08/19/1981 - 09/30/1999 FY98: \$231,759 Total: \$30,141,653
Prin. Invest.: J RYAN
Tech. Officer: GSFC/J NORRIS
CASE Category: 11 - ASTRONOMY

NAS 5 30744 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6840**
ELECTRON DRIFT EXPERIMENT & ACTIVE SPACECRAFT POTENTIAL
 11/22/1989 - 10/17/2000 FY98: \$920,287 Total: \$14,254,415
Prin. Invest.: R TORBERT
Tech. Officer: GSFC/L CHRISTENSEN
CASE Category: 13 - PHYSICS

NAS 5 96063 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6841**
MODIS-EOS DEVELOPMENT OF ALGORITHMS
 07/16/1996 - 06/01/2000 FY98: \$215,000 Total: \$473,000
Prin. Invest.: J CAMPBELL
Tech. Officer: GSFC/D TOLL, GSFC/B CONBOY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 184 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6842**
ANALYSIS AND PUBLICATION OF SELECTED NASA/GTE DACOM DATA
 08/12/1993 - 11/30/1997 FY98: -\$1 Total: \$64,110
Prin. Invest.: R C HARRISS
Tech. Officer: LARC/G W SACHSE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 298 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6843**
PEM-TROPICS B MY 1/2
 04/30/1998 - 03/31/1999 FY98: \$573,000 Total: \$573,000
Prin. Invest.: R W TALBOT, J E DIBB
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 226 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6844**
TROPICAL BIOCHEMISTRY & NASA LBA ECOLOGY SCIENCES
 09/10/1997 - 04/30/1999 FY98: \$112,290 Total: \$257,670
Prin. Invest.: D BARTLETT
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 304 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6845**
WEB BASED SYSTEM FOR TERRESTRIAL ENVIRONMENTAL RESEARCH
 04/22/1998 - 02/28/2001 FY98: \$750,000 Total: \$750,000
Prin. Invest.: B MOORE
Tech. Officer: GSFC/M MAIDEN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 5 338 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6846**
MODELING THE BIOGEOCHEMICAL SYSTEM OF THE TERRESTRIAL AMAZON: ISSUES FOR SUSTAINABILITY
 06/23/1998 - 01/31/1999 FY98: \$224,418 Total: \$224,418
Prin. Invest.: B MOORE, 111
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 357 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6847**
SOIL BIOGEOCHEMISTRY OF CARBON, NUTRIENTS AND TRACE GAS IN THE AMAZON REGION OF BRAZIL: FIELD AND
 08/03/1998 - 07/31/2001 FY98: \$200,341 Total: \$200,341
Prin. Invest.: P CRILL
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30317 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6848**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/22/1995 - 08/31/1997 FY98: -\$1 Total: \$43,999
Prin. Invest.: J D ABER
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 40030 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6849**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 05/29/1991 - 02/28/1998 FY98: \$0 Total: \$1,133,946
Prin. Invest.: D S BARNETT
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTIDISCIPL, OTHER

NGT 51404 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6850**
GSRP
 07/21/1995 - 08/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: C K LETZING
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 - PHYSICS

NGT 51660 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6851**
GRAD STUDENT RESEARCH PROGRAM
 08/15/1996 - 09/10/1997 FY98: -\$153 Total: \$21,847
Prin. Invest.: K L NICH
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 - PHYSICS

NGT 5 30014 UNIVERSITY OF NEW HAMPSHIRE - DURHAM **6852**
CHEMISTRY AND DEPOSITION OF ATMOSPHERIC NITROGEN IN ENVIRONMENT
 10/14/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: R TALBOT
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30083 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6853**
THIRD YEAR FUNDING: "THE EFFECT OF PAST DISTURBAN NITROGEN SATURATION IN NORTHEASTERN U. S. FORESTS
 09/10/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D ABER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30125 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6854**
SOIL HYDROLOGICAL CONTROLS OVER NITROGEN OXIDE EMISSIONS AND NITROGEN CYCLING IN TROPICAL AGRICULTURE
 06/03/1998 – 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: P CRILL
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 40001 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6855**
SPACE GRANT GLOBE WORKSHOP (NEW HAMPSHIRE SPACE GRANT)
 11/16/1996 – 12/31/1996 FY98: \$0 Total: \$18,841
Prin. Invest.: D S BARTLETT
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 40010 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6856**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM.
 01/30/1997 – 02/28/1999 FY98: \$250,647 Total: \$420,647
Prin. Invest.: D S BARTLETT
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50055 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6857**
TO INVESTIGATE FIELD ALIGNED AURORAL CURRENTS WITH FREJA SATELLITE
 07/18/1997 – 08/14/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: C KLETZING
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50096 UNIVERSITY OF NEW HAMPSHIRE – DURHAM **6858**
INVESTIGATE MESOSPHERIC DUST AS A SOURCE FOR SUDAN GRADUATE STUDENT RESEARCHERS PROGRAM
 08/21/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: D LYNCH
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 – ASTRONOMY

NEW JERSEY

NAG 5 3088 NEW JERSEY INSTITUTE OF TECHNOLOGY **6859**
THERMAL AND NON-THERMAL ELECTRON POPULATIONS IN SOLAR BURSTS DEDUCED FROM HARD X-RAY AND MICROWAVE
 10/05/1995 – 10/14/1997 FY98: \$0 Total: \$55,000
Prin. Invest.: H WANG
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3103 NEW JERSEY INSTITUTE OF TECHNOLOGY **6860**
WHITE DWARF EVOLUTION AND AGE AND EVOLUTION OF THE GALAXY
 10/11/1995 – 10/14/1999 FY98: \$51,000 Total: \$173,000
Prin. Invest.: M A WOOD
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3536 NEW JERSEY INSTITUTE OF TECHNOLOGY **6861**
THE STUDY OF QUIET SUN ATMOSPHERE AND MAGNETIC FIELDS SOHO AND BBSO OBSERVATIONS
 12/14/1996 – 11/30/1997 FY98: \$0 Total: \$175,893
Prin. Invest.: D WANG
Tech. Officer: GSFC/A POLAND
CASE Category: 11 – ASTRONOMY

NAG 5 3663 NEW JERSEY INSTITUTE OF TECHNOLOGY **6862**
STUDY OF HARD X-RAY AND MICROWAVE PULSATIONS IN SOHO
 12/11/1996 – 12/14/1998 FY98: \$0 Total: \$35,000
Prin. Invest.: H WANG
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 4919 NEW JERSEY INSTITUTE OF TECHNOLOGY **6863**
STUDIES OF SOLAR MAGNETIC FIELDS AND SOLAR ACTIVITY
 07/08/1997 – 05/31/1999 FY98: \$140,933 Total: \$471,346
Prin. Invest.: D R GOODE
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 5144 NEW JERSEY INSTITUTE OF TECHNOLOGY **6864**
A STUDENT-DESIGNED EXPERIMENT TO ANALYZE PARTICLES COLLECTED DURING A NASA BALLOON FLIGHT
 06/17/1997 – 12/17/1999 FY98: -\$70,296 Total: \$34,220
Prin. Invest.:
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 11 – ASTRONOMY

NAG 5 6055 NEW JERSEY INSTITUTE OF TECHNOLOGY **6865**
STUDY OF FILAMENT ERUPTIONS AND CORONAL MASS EJECTA SOHO OBSERVATIONS
 07/28/1997 – 06/30/1999 FY98: \$0 Total: \$76,000
Prin. Invest.: D WANG, NONE
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 – PHYSICS

NAG 5 6381 NEW JERSEY INSTITUTE OF TECHNOLOGY **6866**
MEASUREMENTS OF THE SOLAR CORONA AND MAGNETIC FIELDS USING IMAGING MICROWAVE SPECTROSCOPY
 10/31/1997 – 06/30/2001 FY98: \$92,345 Total: \$92,345
Prin. Invest.: D GARY
Tech. Officer: GSFC/W WAGNER
CASE Category: 13 – PHYSICS

NAG 5 7085 NEW JERSEY INSTITUTE OF TECHNOLOGY **6867**
STATISTICAL STUDIES OF FILAMENT DIAPPEARANCES BY ANALYZING FULL-DISK YOHKOH SXT AND BBSO HX DATA
 03/13/1998 – 04/14/1999 FY98: \$22,084 Total: \$22,084
Prin. Invest.: H WANG
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 7349 NEW JERSEY INSTITUTE OF TECHNOLOGY **6868**
SOHO/BBSO COORDINATED STUDY ON H AND UV JETS
 05/06/1998 – 04/30/1999 FY98: \$46,000 Total: \$46,000
Prin. Invest.: H WANG
Tech. Officer: GSFC/A POLAND
CASE Category: 13 – PHYSICS

NAG 5 7350 NEW JERSEY INSTITUTE OF TECHNOLOGY **6869**
STUDY OF FILAMENT ERUPTIONS AND CORONAL MASS EJECTIONS BY JOINTBBSO/SOHO OBSERVATIONS
 05/06/1998 – 04/30/1999 FY98: \$46,000 Total: \$46,000
Prin. Invest.: H WANG
Tech. Officer: GSFC/A POLAND
CASE Category: 13 – PHYSICS

NAG 5 7454 NEW JERSEY INSTITUTE OF TECHNOLOGY **6870**
EARTHSHINE MEASUREMENTS OF GLOBAL ATMOSPHERIC PROPERTIES
 07/23/1998 – 07/31/2001 FY98: \$114,638 Total: \$114,638
Prin. Invest.: P R GOODE
Tech. Officer: GSFC/D EVANS
CASE Category: 11 – ASTRONOMY

NAG 8 1114 NEW JERSEY INSTITUTE OF TECHNOLOGY **6871**
JOVE
 02/01/1995 – 12/31/1998 FY98: \$20,000 Total: \$147,000
Prin. Invest.: S BAOHERI, A SOHN, M BIEBER
Tech. Officer: MSFC/F SIX
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 1 1843 PRINCETON UNIVERSITY **6872**
NEURAL NETWORKS FOR ON-LINE STRUCTURAL DYNAMICS AND CONTROL ANALYSIS
 06/11/1996 – 09/30/1998 FY98: \$0 Total: \$90,001
Prin. Invest.: M O PHAN
Tech. Officer: LARC/P G MAGHAM
CASE Category: 42 – AERONAUTICAL ENGR

NAG 1 1920 PRINCETON UNIVERSITY **6873**
PRESTON PROBE CALIBRATION AT HIGH REYNOLDS NUMBER
 05/14/1997 – 05/14/1998 FY98: \$0 Total: \$9,962
Prin. Invest.: A L SMITS
Tech. Officer: LARC/J B ANDERS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 561 PRINCETON UNIVERSITY **6874**
STUDIES IN ROTORCRAFT SYSTEM IDENTIFICATION
 02/03/1989 – 06/30/1999 FY98: \$30,000 Total: \$365,867
Prin. Invest.: H C CURTISS, R M MCKILLUP
Tech. Officer: ARC/J A FRANKLIN, ARC/M B TISCHLER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 988 PRINCETON UNIVERSITY **6875**
SOFIA SCIENCE WORKING GROUP
 06/17/1995 – 06/30/1997 FY98: -\$9,373 Total: \$17,666
Prin. Invest.: G R KNAPP
Tech. Officer: ARC/E F ERICKSON
CASE Category: 11 – ASTRONOMY

NAG 2 1029 PRINCETON UNIVERSITY **6876**
UNSTRUCTURED MESH GENERATION FOR COMPLEX CONFIGURATIONS
 03/06/1996 – 12/31/1998 FY98: \$80,000 Total: \$278,799
Prin. Invest.: T J EAKER, G A JAMESON
Tech. Officer: ARC/S E CLIFF, ARC/R A KENNELLY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 1587 PRINCETON UNIVERSITY **6877**
A STUDY OF HOT SECTION CHEMICAL KINETICS FOR GAS TURBINE EMISSIONS PREDICTIONS
 04/12/1994 – 03/31/1998 FY98: \$0 Total: \$632,150
Prin. Invest.: F D FLYER, R YETTER
Tech. Officer: LEFC/R NIEDZWIECKI
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 1713 PRINCETON UNIVERSITY **6878**
STUDIES OF FLAME STRUCTURES IN MICROGRAVITY
 03/28/1995 – 11/30/1998 FY98: \$80,000 Total: \$425,000
Prin. Invest.: C K LAW
Tech. Officer: LEFC/K SACKSTEDER
CASE Category: 49 – ENGINEERING, OTHER

NAG 3 1762 PRINCETON UNIVERSITY **6879**
DYNAMICS OF HARD SPHERE COLLOIDAL DISPERSIONS
 06/27/1995 – 12/31/1998 FY98: \$220,000 Total: \$1,170,000
Prin. Invest.: P M CHAIKIN
Tech. Officer: LEFC/J S LING
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2164 PRINCETON UNIVERSITY **6880**
FUNDAMENTAL CHARACTERIZATION & KINETIC STUDIES OF EMISSIONS SPECIES: FUEL SULFUR ISSUES & SOX/NOX/CO
 05/21/1998 – 03/12/2000 FY98: \$91,847 Total: \$91,847
Prin. Invest.: F L RYER, R A YETTER
Tech. Officer: LEFC/C C WEY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 616 PRINCETON UNIVERSITY **6881**
INTERSTELLAR MEDIUM ABSORPTION PROFILE SPECTROGRAPH (IMAPS)
 01/01/1983 – 10/31/1999 FY98: \$400,000 Total: \$10,712,016
Prin. Invest.: E B ENKINS
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 – PHYSICS

NAG 5 1628 PRINCETON UNIVERSITY **6882**
APPLICATIONS OF SIR-C SYNTHETIC APERTURE RADAR TO HYDROLOGY
 06/27/1991 – 06/30/1997 FY98: -\$72 Total: \$348,730
Prin. Invest.: E W WOOD
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 1629 PRINCETON UNIVERSITY **6883**
HST GTO PARTICIPATION
 07/15/1991 – 08/31/1999 FY98: \$41,764 Total: \$925,196
Prin. Invest.: E J GROTH
Tech. Officer: GSFC/S SOBIESKI
CASE Category: 11 – ASTRONOMY

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| NAG 5 1940 PRINCETON UNIVERSITY 6884 THEORETICAL STUDIES OF CRUSTAL DEFORMATION DUE TO CLACIAL, TIDAL, AND ATMOSPHERIC LOADS 03/12/1992 – 09/14/1997 FY98: \$0 Total: \$414,999 Prin. Invest.: W J MORGAN Tech. Officer: GSFC/B G BILLS CASE Category: 32 – GEOLOGICAL SCIENCE | NAG 5 3364 PRINCETON UNIVERSITY 6892 ORIGIN AND EVOLUTION OF DUST IN ELLIPTICAL GALAXIE S 08/28/1996 – 08/31/1999 FY98: \$110,000 Total: \$151,000 Prin. Invest.: G R KNAPP Tech. Officer: GSFC/D WEST CASE Category: 11 – ASTRONOMY |
| NAG 5 2326 PRINCETON UNIVERSITY 6885 SIMULATION OF BOREAL ECOSYSTEM CARBON AND WATER BU DGETS: SCALING FROM LOCAL TO REGIONAL EXTENTS 07/16/1993 – 07/31/1997 FY98: \$0 Total: \$20,000 Prin. Invest.: E WOOD Tech. Officer: GSFC/F G HALL, GSFC/P J SELLERS CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NAG 5 3510 PRINCETON UNIVERSITY 6893 ASSIMILATION OF SATELLITE COLOR OBSERVATIONS IN A GCM-ECOSYS-TEM MODEL 11/19/1996 – 05/31/1998 FY98: \$0 Total: \$100,000 Prin. Invest.: J SARMIENTO Tech. Officer: GSFC/N MAYNARD CASE Category: 33 – OCEANOGRAPHY |
| NAG 5 2410 PRINCETON UNIVERSITY 6886 STUDIES OF HIGH ENERGY PULSARS WITH EGRET 10/26/1993 – 01/31/1997 FY98: \$0 Total: \$147,986 Prin. Invest.: J H TAYLOR Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE CASE Category: 11 – ASTRONOMY | NAG 5 3803 PRINCETON UNIVERSITY 6894 PULSAR TIMING PARAMETERS IN SUPPORT OF GRO 12/21/1996 – 12/14/1998 FY98: \$0 Total: \$35,439 Prin. Invest.: J H TAYLOR Tech. Officer: GSFC/J P NORRIS CASE Category: 11 – ASTRONOMY |
| NAG 5 2693 PRINCETON UNIVERSITY 6887 THE NON-AXISYMMETRIC MILKY WAY 08/17/1994 – 09/24/1998 FY98: \$0 Total: \$45,000 Prin. Invest.: D N SPERGEL Tech. Officer: GSFC/D WEST CASE Category: 11 – ASTRONOMY | NAG 5 4045 PRINCETON UNIVERSITY 6895 SYSTEMATIC ASSESSMENT AND ANALYSIS OF TWO-DIMENSIO OZONE MODELS 03/17/1997 – 12/31/1997 FY98: \$0 Total: \$79,999 Prin. Invest.: D RABITZ Tech. Officer: GSFC/J A KAYE CASE Category: 31 – ATMOSPHERIC SCIENCE |
| NAG 5 2759 PRINCETON UNIVERSITY 6888 THE UNIVERSE AT MODERATE REDSHIFT 10/21/1994 – 08/31/1998 FY98: \$140,000 Total: \$713,800 Prin. Invest.: J P OSTRICKER Tech. Officer: GSFC/D WEST CASE Category: 11 – ASTRONOMY | NAG 5 4701 PRINCETON UNIVERSITY 6896 BIODIVERSITY OF ECOSYSTEM PROCESS: THEORY 06/06/1997 – 05/31/1998 FY98: \$0 Total: \$13,000 Prin. Invest.: S PACALA Tech. Officer: GSFC/A C JANETOS CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NAG 5 2796 PRINCETON UNIVERSITY 6889 HYDRODYNAMIC STABILITY AND MAGNETIC RECONNECTION I N DISKS AND STARS 11/18/1994 – 01/31/1999 FY98: \$0 Total: \$315,100 Prin. Invest.: J GOODMAN Tech. Officer: GSFC/D WEST CASE Category: 11 – ASTRONOMY | NAG 5 6422 PRINCETON UNIVERSITY 6897 INDIVIDUAL-BASED MODELS, AND SCALING FROM INDIVIDU 09/29/1997 – 07/31/1998 FY98: \$0 Total: \$110,000 Prin. Invest.: D A LEVIN Tech. Officer: GSFC/D WICKLAND CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NAG 5 2858 PRINCETON UNIVERSITY 6890 ASTROPHYSICS OF WARM MOLECULAR GAS: PHOTODISSOCIAT ION FRONTS AND SHOCKS 01/06/1995 – 02/28/1999 FY98: \$0 Total: \$237,000 Prin. Invest.: B T DRAINE Tech. Officer: GSFC/D WEST CASE Category: 21 – MATHEMATICS | NAG 5 6494 PRINCETON UNIVERSITY 6898 REMOTE SENSING FOR LAND SURFACE HYDROLOGY: ACCURAC Y AND UNCERTAINTY ANALYSES 10/27/1997 – 09/30/2000 FY98: \$291,944 Total: \$291,944 Prin. Invest.: E WOOD Tech. Officer: GSFC/J DODGE CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NAG 5 3048 PRINCETON UNIVERSITY 6891 RADIOMETER STUDIES FOR THE MICROWAVE ANISOTROPY PROBE 08/14/1995 – 06/30/1997 FY98: -\$76 Total: \$107,924 Prin. Invest.: D T WILKSON Tech. Officer: GSFC/C L BENNETT CASE Category: 11 – ASTRONOMY | NAG 5 6511 PRINCETON UNIVERSITY 6899 "ESTIMATION OF FLOOD HAZARDS THROUGH REMOTE SENSIN G AND MODELING" 11/04/1997 – 10/31/1999 FY98: \$96,365 Total: \$96,365 Prin. Invest.: E WOOD Tech. Officer: GSFC/H V FREY CASE Category: 32 – GEOLOGICAL SCIENCE |

NAG 5 6591 PRINCETON UNIVERSITY **6900**
EVALUATION AND INTERCOMPARISON OF THREE-DIMENSIONAL GLOBAL MARINE CARBON CYCLE MODELS
 11/07/1997 – 12/31/1998 FY98: \$58,742 Total: \$58,742
Prin. Invest.: J L SARMIENTO
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6671 PRINCETON UNIVERSITY **6901**
REMOTE SENSING FOR REGIONAL ENVIRONMENTAL IMPACT ASSESSMENT OF LAND CONVERSION FOR BIOMASS PRODUCTION
 12/16/1997 – 10/31/1998 FY98: \$102,000 Total: \$102,000
Prin. Invest.: E LARSON
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6734 PRINCETON UNIVERSITY **6902**
IMAGING THE CELESTIAL EQUATOR AT 12 MICRONS AND 2.5 MICRONS AND COMPARISON WITH FIVE COLOR
 12/16/1997 – 12/31/1998 FY98: \$45,000 Total: \$45,000
Prin. Invest.: G KNAPP
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7016 PRINCETON UNIVERSITY **6903**
ASTROMETRY OF GRAVITATIONAL LENSING WITH SIMBAD
 02/17/1998 – 02/14/1999 FY98: \$46,391 Total: \$46,391
Prin. Invest.: B PACZYNSKI
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7030 PRINCETON UNIVERSITY **6904**
INTERSTELLAR STUDIES – ATP
 02/17/1998 – 02/14/2001 FY98: \$96,879 Total: \$96,879
Prin. Invest.: B T DRAINE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7047 PRINCETON UNIVERSITY **6905**
QUASAR ABSORPTION LINES AT LOW AND INTERMEDIATE REDSHIFTS – ATP
 02/19/1998 – 02/14/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: J N BACHALL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7066 PRINCETON UNIVERSITY **6906**
DYNAMICS OF THE GALAXY, GLOBULAR CLUSTERS, AND THE LOCAL GROUP – ATP
 02/26/1998 – 02/28/1999 FY98: \$78,000 Total: \$78,000
Prin. Invest.: S D TREMAINE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7154 PRINCETON UNIVERSITY **6907**
FORMATION AND EVOLUTION OF GROUPS AND FILAMENTS – ATP
 03/16/1998 – 03/14/1999 FY98: \$115,828 Total: \$115,828
Prin. Invest.: D N SPERGEL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7297 PRINCETON UNIVERSITY **6908**
A TERRESTRIAL WATER AND ENERGY BUDGET FOR THE BOREAL STUDY REGION SCALE USING FIELD MEASUREMENTS, R
 04/21/1998 – 04/30/2000 FY98: \$49,951 Total: \$49,951
Prin. Invest.: E F WOOD
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7310 PRINCETON UNIVERSITY **6909**
LONG-TERM OF BITAL EVOLUTION IN PLANETARY SYSTEMS AND PROTO-PLANETARY DISKS
 04/22/1998 – 04/30/2001 FY98: \$75,000 Total: \$75,000
Prin. Invest.: S D TREMAINE
Tech. Officer: HQ J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7395 PRINCETON UNIVERSITY **6910**
THEORETICAL STUDY OF SOLAR ACOUSTIC OSCILLATIONS
 05/11/1998 – 05/14/1999 FY98: \$20,000 Total: \$20,000
Prin. Invest.: D KLIMAR
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 7544 PRINCETON UNIVERSITY **6911**
HYDROLOGY OF EXTREME FLOODS FOR THE UNITED STATES EAST OF THE ROCKY MOUNTAINS
 06/23/1998 – 06/30/2001 FY98: \$246,097 Total: \$246,097
Prin. Invest.: J A SMITH
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 8 969 PRINCETON UNIVERSITY **6912**
STUDIES IN ELECTROHYDRODYNAMICS
 06/02/1993 – 09/30/1999 FY98: \$0 Total: \$840,111
Prin. Invest.: D A SAVILLE
Tech. Officer: MSI/C/BC GUYNES
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1157 PRINCETON UNIVERSITY **6913**
DIELECTRIC & ELECTROHYDRODYNAMIC PROPERTIES OF SUSPENSIONS
 08/02/1995 – 10/21/1997 FY98: \$22,598 Total: \$127,402
Prin. Invest.: D A SAVILLE
Tech. Officer: MSI/C/P RHODES
CASE Category: 13 – PHYSICS

NAG 8 1368 PRINCETON UNIVERSITY **6914**
ELECTROHYDRODYNAMICS OF SUSPENSIONS
 05/30/1997 – 11/30/1998 FY98: \$128,000 Total: \$198,000
Prin. Invest.: D A SAVILLE
Tech. Officer: MSI/C/D NOENER
CASE Category: 12 – CHEMISTRY

NAG 8 1517 PRINCETON UNIVERSITY **6915**
TERRESTRIAL HYDROLOGY AND CLIMATE STUDIES USING EOS-ERA DATA (CATEGORY 2)
 05/07/1998 – 04/30/2001 FY98: \$169,789 Total: \$169,789
Prin. Invest.: E F WOOD, NONE
Tech. Officer: MSI/C/J ARNOLD
CASE Category: 11 – ATMOSPHERIC SCIENCE

NAG 8 1521 PRINCETON UNIVERSITY **6916**
OROGRAPHIC RAINFALL IN THE APPALACHIAN REGION OF THE MISSISSIPPI RIVER BASIN
 05/15/1998 – 04/30/2001 FY98: \$69,769 Total: \$69,769
Prin. Invest.: J A SMITH
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAGW 2118 PRINCETON UNIVERSITY **6917**
DISTANT CLUSTERS OF GALAXIES
 05/23/1990 – 11/30/1996 FY98: –\$3,078 Total: \$410,641
Prin. Invest.: J E GUNN
Tech. Officer: HQ/G S KUTTER, HQ/G R RIEGLER
CASE Category: 11 – ASTRONOMY

NAGW 4688 PRINCETON UNIVERSITY **6918**
INDIVIDUAL-BASED MODELS, AND SCALING FROM INDIVIDUALS TO LANGSCAPES
 08/04/1995 – 07/31/1997 FY98: \$0 Total: \$205,000
Prin. Invest.: S A LEVIN
Tech. Officer: HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAS 5 30110 PRINCETON UNIVERSITY **6919**
SPACE TELESCOPE IMAGING SPECTROGRAPH PROGRAM SUPPORT
 06/17/1987 – 09/30/2001 FY98: \$0 Total: \$666,000
Prin. Invest.: E JENKINS
Tech. Officer: GSFC/D VITAGLINO
CASE Category: 11 – ASTRONOMY

NAS 5 31719 PRINCETON UNIVERSITY **6920**
EOS INVESTIGATION "GLOBAL HYDROLOGIC PROCESSES & CLIMATE
 10/22/1991 – 01/31/1998 FY98: \$0 Total: \$1,086,500
Prin. Invest.: E WOOD
Tech. Officer: GSFC/W LAU
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAS 5 96021 PRINCETON UNIVERSITY **6921**
MICROWAVE ANISOTROPY PROBE INVESTIGATION (PHASE I DEFINITION STUDY)
 06/28/1996 – 09/30/2000 FY98: \$2,400,000 Total: \$6,903,000
Prin. Invest.: D WILKINSON
Tech. Officer: GSFC/R CUDDAPAH
CASE Category: 11 – ASTRONOMY

NAS 9 19519 PRINCETON UNIVERSITY **6922**
LIFE SCIENCES FLIGHT EXPERIMENT-STRESS OF SPACE- FLIGHT: EFFECTS ON LEARNING
 12/18/1995 – 12/18/1999 FY98: \$150,000 Total: \$663,000
Prin. Invest.: T J SHORS, PH.D
Tech. Officer: JSC/S SAWYER
CASE Category: 59 – LIFE SCIENCE, OTHER

NCC 3 487 PRINCETON UNIVERSITY **6923**
SCIENTIFIC SUPPORT FOR A SPACE SHUTTLE DROPLET BURNING EXPERIMENT
 07/15/1996 – 04/27/1999 FY98: \$206,067 Total: \$527,302
Prin. Invest.: F L DRYER
Tech. Officer: LERC/H D ROSS
CASE Category: 46 – MECHANICAL ENGR

NGT 30264 PRINCETON UNIVERSITY **6924**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/21/1994 – 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: S W PASCALA
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 33 – OCEANOGRAPHY

NGT 30288 PRINCETON UNIVERSITY **6925**
GLOBAL CHANGE FELLOWSHIP AWARD
 10/06/1994 – 01/31/1997 FY98: –\$7,816 Total: \$36,184
Prin. Invest.: S G PHILANDER
Tech. Officer: HQ/J S THEON, HQ/G ASRAR
CASE Category: 33 – OCEANOGRAPHY

NGT 51343 PRINCETON UNIVERSITY **6926**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 – 06/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: D A SAVILLE
Tech. Officer: HQ/G A LESANE
CASE Category: 43 – CHEMICAL ENGR

NGT 3 52301 PRINCETON UNIVERSITY **6927**
GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM
 07/01/1995 – 09/30/1997 FY98: –\$931 Total: \$43,069
Prin. Invest.: W B RUSSEL
Tech. Officer: LERC/L SHAW
CASE Category: 43 – CHEMICAL ENGR

NGT 5 56 PRINCETON UNIVERSITY **6928**
GSAP TRAINING GRANT FOR THEODORE ENDENY TITLE: NON. SOURCE POLLUTION MODELING USING REMOTE
 07/25/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: E WOOD
Tech. Officer: GSFC/E ENGMAN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 61 PRINCETON UNIVERSITY **6929**
KALMAN FILTER ESTIMATION OF SEASONAL CO2 FLUXES IN TO THE GLOBAL LAND/OCEAN SURFACE
 12/16/1997 – 09/14/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: J SARMIENTO
Tech. Officer: GSFC/M BURRELL
CASE Category: 13 – PHYSICS

NGT 5 30009 PRINCETON UNIVERSITY **6930**
ASSESSMENT OF THE ROLE OF WATER VAPOR FEEDBACK IN VARIABILITY USING THE GFDL COUPLED OCEAN-ATMOSPHER
 10/14/1996 – 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: D MANABE
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30015 PRINCETON UNIVERSITY **6931**
ANALYSIS OF THE FACTORS DETERMINING THE DISTRIBUTION OF TROPOSPHERE
 10/23/1996 – 02/28/1999 FY98: \$11,000 Total: \$55,000
Prin. Invest.: H LEVY, 11
Tech. Officer: GSFC/G ASRAR
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 5 30113 PRINCETON UNIVERSITY **6932**
CHANGE IN FOREST COVER OF NANG RONG, THAILAND: AN INTEGRATED
PRGM OF LANDSCAPE ANALYSIS, EMPIRICAL S
 10/01/1997 - 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: S HUBBELL
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30134 PRINCETON UNIVERSITY **6933**
RESPONSE OF ENSO TO MODULATIONS IN TROPICAL CLIMATE STUDENT: WITTENBERG
 09/04/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: G PHILANDER
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30137 PRINCETON UNIVERSITY **6934**
TRANSBOUNDARY AIR POLLUTION IN ASIA/STUDENT: HOLLOWAY
 09/04/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: H LEVY, 11
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30156 PRINCETON UNIVERSITY **6935**
THE INFLUENCE OF THE TROPOSPHERE'S STATIC STABILITY ON CLIMATE SENSITIVITY
 08/28/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: I M HELD, SCHNEIDER
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50033 PRINCETON UNIVERSITY **6936**
MEASURING ANISOTROPY IN THE COSMIC MICROWAVE BACKGROUND RECEIVERS
 08/04/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: L PAGE/MILLER
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50065 PRINCETON UNIVERSITY **6937**
STUDY OF PLASMA ACCELERATION AND HEATING DURING DIRECTIONALITY IN A MAGNETOHYDRODYNAMIC LABORATORY EXPERIMENT
 08/26/1997 - 07/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: M YAMADA
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50193 PRINCETON UNIVERSITY **6938**
EXPERIMENTAL & THEORETICAL STUDIES OF ANOMALOUS RESISTIVITY IN MAGNETIC RECONNECTION
 06/05/1998 - 06/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M YAMADA
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 11 - ASTRONOMY

NGT 5 90041 PRINCETON UNIVERSITY **6939**
UNDERGRADUATE STUDENT RESEARCHERS PROGRAM
 02/03/1997 - 08/14/1997 FY98: \$0 Total: \$4,810
Prin. Invest.: P BOGUCK-CHATMAN
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6776 ROWAN UNIVERSITY **6940**
RESEARCH IN PLANETARY ASTRONOMY
 01/09/1998 - 01/30/1999 FY98: \$77,293 Total: \$77,293
Prin. Invest.: K MAGEE-SAUER
Tech. Officer: GSFC/T MORGAN
CASE Category: 11 - ASTRONOMY

NAG 8 995 ROWAN UNIVERSITY **6941**
JOVE
 11/19/1993 - 08/31/1998 FY98: \$20,000 Total: \$103,640
Prin. Invest.: V BROWN
Tech. Officer: MSFC/F SIX
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 3 643 ROWAN UNIVERSITY **6942**
NUMERICAL MODEL DEVELOPMENT OF FLAME PROPAGATION THROUGH NON UNIFORM PREMIXED GAS SYSTEMS
 08/24/1998 - 11/30/1998 FY98: \$9,986 Total: \$9,986
Prin. Invest.: A L MARCHESI
Tech. Officer: LE RC/H D ROSE
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1559 RUTGERS STATE UNIVERSITY - PISCATAWAY **6943**
STOCHASTIC METHODS FOR AIRCRAFT DESIGN MY 1/3
 02/14/1994 - 06/30/1998 FY98: \$21,093 Total: \$631,203
Prin. Invest.: R E PELZ, M M OGOT
Tech. Officer: LA RC/D H RUDY, LARC/M D SALOS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1748 RUTGERS STATE UNIVERSITY - PISCATAWAY **6944**
POLAR CLOUD PARAMETERS RETRIEVED FROM HIRS & AVHRR DATA: ALGORITHM DEVELOPMENT
 08/28/1995 - 12/31/1998 FY98: \$24,002 Total: \$89,515
Prin. Invest.: J A FRANCIS
Tech. Officer: LA RC/B A BAUM
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2058 RUTGERS STATE UNIVERSITY - PISCATAWAY **6945**
VALIDATION OF SATELLITE-BASED METHODS AND PARAMETERS TO ESTIMATE SURFACE LONGWAVE RADIATION
 04/21/1998 - 08/11/1999 FY98: \$14,171 Total: \$14,171
Prin. Invest.: J A FRANCIS
Tech. Officer: LA RC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1234 RUTGERS STATE UNIVERSITY - PISCATAWAY **6946**
SELF ADAPTIVE SOFTWARE FOR AUTOMATED DESIGN OF COMPLEX ENGINEERING SYSTEMS
 07/24/1998 - 10/1/1998 FY98: \$200,000 Total: \$200,000
Prin. Invest.: S AMIAREL, T ELLMAN
Tech. Officer: ARD/M R LOWRY
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 1453 RUTGERS STATE UNIVERSITY - PISCATAWAY **6947**
OSCILLATORY THERMOCAPILLARY CONVECTION
 02/11/1993 - 10/31/1997 FY98: \$0 Total: \$244,129
Prin. Invest.: A ZEBIB
Tech. Officer: LE RC/R L THOMPSON
CASE Category: 46 - MECHANICAL ENGR

NAG 5 2803 RUTGERS STATE UNIVERSITY – PISCATAWAY **6948**
DYNAMICS AND EVOLUTION OF GALAXIES
 12/01/1994 – 12/14/1997 FY98: \$0 Total: \$315,000
Prin. Invest.: D MERRITT
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3158 RUTGERS STATE UNIVERSITY – PISCATAWAY **6949**
GUARANTEED TIME OBSERVER: SPACE TELESCOPE IMAGING SPECTROGRAPH
 01/23/1996 – 09/30/1999 FY98: \$219,000 Total: \$449,000
Prin. Invest.: C L JOSEPH
Tech. Officer: GSFC/KRUEGER
CASE Category: 11 – ASTRONOMY

NAG 5 3432 RUTGERS STATE UNIVERSITY – PISCATAWAY **6950**
DETERMINING THE HUBBLE CONSTANT USING X-RAY, OPTIC IONS OF CLUSTER
 10/30/1996 – 09/30/1998 FY98: \$114,689 Total: \$248,293
Prin. Invest.: J P HUGHES
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3989 RUTGERS STATE UNIVERSITY – PISCATAWAY **6951**
TEST & EVALUATION OF UV DETECTORS
 02/27/1997 – 02/28/1998 FY98: \$0 Total: \$42,000
Prin. Invest.: D L JOSEPH
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 4327 RUTGERS STATE UNIVERSITY – PISCATAWAY **6952**
ISOTOPIC INVESTIGATIONS OF EXTRATERRESTRIAL MATERI
 04/11/1997 – 02/28/1999 FY98: \$43,333 Total: \$108,333
Prin. Invest.: D F HERZOG
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4472 RUTGERS STATE UNIVERSITY – PISCATAWAY **6953**
SIMULATION AND ANALYSIS OF METEORITIC MATERIAL
 06/17/1997 – 02/28/2000 FY98: \$73,333 Total: \$198,870
Prin. Invest.: D HEWINS
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4597 RUTGERS STATE UNIVERSITY – PISCATAWAY **6954**
TRANSIENT HEATING IN THE SOLAR ACCRETION DISK
 05/15/1997 – 02/28/2001 FY98: \$33,333 Total: \$78,333
Prin. Invest.: D H HEWINS
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4794 RUTGERS STATE UNIVERSITY – PISCATAWAY **6955**
DETERMINING THE ABUNDANCES OF THE LMC FROM SUPERNO
 06/17/1997 – 06/30/1999 FY98: \$0 Total: \$45,600
Prin. Invest.: J HUGHES
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 4871 RUTGERS STATE UNIVERSITY – PISCATAWAY **6956**
ASCA STUDY OF A CRAB LIKE SUPERNOVA REMNANT; ASCA OBSERVATIONS OF SYNYAEV-ZEL' DOVICH CLUSTERS
 07/14/1997 – 09/30/1999 FY98: \$0 Total: \$79,123
Prin. Invest.: J HUGHES
Tech. Officer: GSFC/N WHITE
CASE Category: 12 – CHEMISTRY

NAG 5 4908 RUTGERS STATE UNIVERSITY – PISCATAWAY **6957**
GENERATION OF 18-YEAR TOVS PATHFINDER DATASET FOR
 06/20/1997 – 09/30/1999 FY98: \$53,815 Total: \$165,223
Prin. Invest.: D J FRANCIS
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6011 RUTGERS STATE UNIVERSITY – PISCATAWAY **6958**
"NJ-NSCORT FOR BIOREGENERATIVE LIFE SUPPORT SYSTEM
 07/23/1997 – 04/30/1999 FY98: \$999,998 Total: \$1,999,998
Prin. Invest.: H JANES
Tech. Officer: GSFC/G FOGLEMAN
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 6037 RUTGERS STATE UNIVERSITY – PISCATAWAY **6959**
BLACK HOLES AND GALAXY DYNAMICS
 10/08/1997 – 10/14/1998 FY98: \$90,000 Total: \$90,000
Prin. Invest.: D MERRITT
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6186 RUTGERS STATE UNIVERSITY – PISCATAWAY **6960**
EFFECTS OF RADIATION ON DESORPTION OF SODIUM FROM RELATION TO ORIGINS OF SODIUM IN THE ATMOSPHERES O
 07/30/1997 – 09/14/1999 FY98: \$56,000 Total: \$109,000
Prin. Invest.: D MADEY
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 6420 RUTGERS STATE UNIVERSITY – PISCATAWAY **6961**
ROSAT HRI OBSERVATIONS OF SMC SNRS
 11/25/1997 – 10/31/1999 FY98: \$57,558 Total: \$57,558
Prin. Invest.: J HUGHES
Tech. Officer: GSFC/R PETRE
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 6614 RUTGERS STATE UNIVERSITY – PISCATAWAY **6962**
THE TEST AND EVALUATION OF UV DETECTORS
 02/12/1998 – 12/31/1998 FY98: \$22,000 Total: \$22,000
Prin. Invest.: C L JOSEPH
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 6982 RUTGERS STATE UNIVERSITY – PISCATAWAY **6963**
REPRESENTING KEY PHYTOPLANKTON GROUPS IN OCEAN CARBON CYCLE MODELS
 03/23/1998 – 03/14/2001 FY98: \$267,000 Total: \$267,000
Prin. Invest.: P G FALKOWSKI
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7015 RUTGERS STATE UNIVERSITY - PISCATAWAY **6964**
THEORETICAL ISSUES FOR INTERPRETING COSMIC MICROWAVE BACKGROUND MAPS ATP
 02/17/1998 - 04/30/1999 FY98: \$32,400 Total: \$32,400
Prin. Invest.: A KOSWSKY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7148 RUTGERS STATE UNIVERSITY - PISCATAWAY **6965**
UV SOLID STATE DETECTORS
 05/04/1998 - 04/14/2001 FY98: \$74,644 Total: \$74,644
Prin. Invest.: C L JOSEPH
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 - ASTRONOMY

NAG 5 7437 RUTGERS STATE UNIVERSITY - PISCATAWAY **6966**
ESTABLISHING AND IMPROVING A TRACEABLE, TIME-DEPENDENT PRIMARY PRODUCTION ALGORITHM FOR GENERATING
 06/11/1998 - 07/14/1999 FY98: \$205,000 Total: \$205,000
Prin. Invest.: M BEHRENFELD
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7539 RUTGERS STATE UNIVERSITY - PISCATAWAY **6967**
SCOPE GENERAL ASSEMBLY WORKSHOP: THE COMMONS REVISITED: AN AMERICAS PERSPECTIVE
 06/17/1998 - 05/31/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: M ROBSON
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7564 RUTGERS STATE UNIVERSITY - PISCATAWAY **6968**
EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND REGIONS
 06/30/1998 - 06/30/2001 FY98: \$115,143 Total: \$115,143
Prin. Invest.: D ROBINSON
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 8 1513 RUTGERS STATE UNIVERSITY - PISCATAWAY **6969**
SPATIAL & TEMPORAL VARIABILITY OF SOIL MOISTURE & ITS RELATION TO WATER & ENERGY BALANCES IN A MONSON
 06/01/1998 - 05/31/2001 FY98: \$122,207 Total: \$122,207
Prin. Invest.: Y LIU, R AVISSAR
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 2263 RUTGERS STATE UNIVERSITY - PISCATAWAY **6970**
TRANSIENT HEATING IN THE SOLAR ACCRETION DISK
 02/26/1991 - 10/31/1996 FY98: \$0 Total: \$275,000
Prin. Invest.: R H HEWINS
Tech. Officer: HQ/J A NUTH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 5045 RUTGERS STATE UNIVERSITY - PISCATAWAY **6971**
ADVANCED TECHNOLOGY REPLACEMENTS FOR GLASS MICROCHAMBER PLATES
 05/09/1996 - 01/31/1997 FY98: \$0 Total: \$42,000
Prin. Invest.: D L JOSEPH
Tech. Officer: HQ/E J WEILER
CASE Category: 13 - PHYSICS

NAGW 5226 RUTGERS STATE UNIVERSITY - PISCATAWAY **6972**
RESEARCH (BIDIRECTIONAL)
 10/07/1996 - 04/31/1997 FY98: \$0 Total: \$40,000
Prin. Invest.: R AVISSAR
Tech. Officer: HQ/A C JANETOS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 229 RUTGERS STATE UNIVERSITY - PISCATAWAY **6973**
COOPERATIVE RESEARCH IN REGIONAL AND GLOBAL CLIMATE
 08/19/1997 - 12/31/1998 FY98: \$0 Total: \$400,000
Prin. Invest.: R AVISSAR
Tech. Officer: GSFC/R B STOTHERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 30351 RUTGERS STATE UNIVERSITY - PISCATAWAY **6974**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/05/1995 - 01/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: R J LATHROP, JR.
Tech. Officer: HQ/G ASRAR, HQ/M BALTUCK
CASE Category: 33 - OCEANOGRAPHY

NGT 5 30062 RUTGERS STATE UNIVERSITY - PISCATAWAY **6975**
ANTHROPOGENIC PERTURBATIONS TO THE CARBON CYCLE FROM ESTIMATED FROM NEW HISTORICAL LAND-USE DATA
 09/10/1997 - 04/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D ROBINSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NGT 5 30100 RUTGERS STATE UNIVERSITY - PISCATAWAY **6976**
EFFECTS OF THE PHRAGMITES AUSTRALIS INVASION ON NITRATID TIDAL MARSH OF THE DELAWARE RIVER BASIN
 09/15/1997 - 04/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: R J LATHROP, JR.
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NAG 1 1908 RUTGERS STATE UNIVERSITY OF NJ NEW BRUNSWICK **6977**
EVALUATION AND DEVELOPMENT OF NIGHTTIME CLOUD BASE ALGORITHMS FOR CERS
 03/07/1997 - 09/30/1998 FY98: \$0 Total: \$42,674
Prin. Invest.: J F FRANCIS
Tech. Officer: HQ/J FRANCIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 3391 RUTGERS STATE UNIVERSITY OF NJ NEW BRUNSWICK **6978**
SIMULATION AND ANALYSIS OF METEORIC MATERIALS
 03/19/1993 - 02/28/1998 FY98: \$0 Total: \$426,030
Prin. Invest.: R H HEWINS
Tech. Officer: HQ/H C BRINTON
CASE Category: 13 - PHYSICS

NAGW 4760 RUTGERS STATE UNIVERSITY OF NJ NEW BRUNSWICK **6979**
GENERATION OF AN 18-YEAR TOVS PATHFINDER DATA SET FOR THE ARCTIC BASIN
 10/05/1995 - 12/31/1998 FY98: \$0 Total: \$360,066
Prin. Invest.: J F FRANCIS
Tech. Officer: HQ/M E MAIDEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3715 STEVENS INSTITUTE OF TECHNOLOGY **6980**
STEVENS TECHNICAL ENRICHMENT PROGRAM-MIDDLE SCHOOL
 02/03/1997 - 01/31/1998 FY98: \$0 Total: \$85,750
Prin. Invest.: T G WILLIAMS
Tech. Officer: GSFC/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4978 STEVENS INSTITUTE OF TECHNOLOGY **6981**
ELECTRON COLLISIONS WITH FREE RADICALS
 07/18/1997 - 06/30/1998 FY98: \$16,600 Total: \$66,400
Prin. Invest.: D BECKER
Tech. Officer: GSFC/R BEEBEE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6116 STEVENS INSTITUTE OF TECHNOLOGY **6982**
ACOUSTIC BONE MASS AND TRABECULAR
 09/05/1997 - 09/30/1998 FY98: \$0 Total: \$58,493
Prin. Invest.: D DONSKOY
Tech. Officer: HQ/B SIEGEL
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4586 STEVENS INSTITUTE OF TECHNOLOGY **6983**
ACOUSTIC BONE MASS AND TRABECULAR PROPERTY MEASUREMENTS
 07/07/1995 - 09/27/1998 FY98: \$0 Total: \$207,196
Prin. Invest.: D M DONSKOY
Tech. Officer: HQ/G SCHMIDT
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 5 224 STEVENS INSTITUTE OF TECHNOLOGY **6984**
FUNDING FOR 1997/98 STEVENS TECHNICAL ENRICHMENT P
 07/24/1997 - 08/31/1999 FY98: \$34,941 Total: \$172,989
Prin. Invest.: T WILLIAMS
Tech. Officer: GSFC/D MENCHAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 5 40041 STEVENS INSTITUTE OF TECHNOLOGY **6985**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA
 01/24/1997 - 02/28/1999 FY98: \$212,500 Total: \$382,500
Prin. Invest.: S THANGAM
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 18775 UNIV OF MEDICINE AND DENTISTRY **6986**
MEASUREMENT OF ENERGY EXPENDITURE DURING SPACE FLT
 10/09/1992 - 12/31/1997 FY98: \$26,985 Total: \$934,737
Prin. Invest.: T P STEIN
Tech. Officer: JSC/J VILLARREAL
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 2 1001 UNIV OF MEDICINE AND DENTISTRY **6987**
EFFECT OF GRAVITY ON ENERGY EXPENDITURE BY RATS
 07/24/1997 - 06/30/1999 FY98: \$82,500 Total: \$152,500
Prin. Invest.: T P STEIN
Tech. Officer: ARC/C E WADE, ARC/S STANLEY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 950 UNIV. OF MEDICINE & DENTISTRY-NJ. **6988**
REDUCED GRAVITY: EFFECTS IN THE DEVELOPING NERVOUS SYSTEM
(DEFINITION PHASE)
 12/16/1994 - 09/30/1998 FY98: \$131,000 Total: \$418,231
Prin. Invest.: R S KOWAKOWSKI
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 9 19409 UNIV. OF MEDICINE & DENTISTRY-NJ. **6989**
PROTEIN METABOLISM DURING LONG TERM SPACE FLIGHTS
 11/13/1995 - 09/30/1998 FY98: \$211,990 Total: \$530,990
Prin. Invest.: P T STEIN
Tech. Officer: JSC/J VILLARREAL
CASE Category: 56 - MEDICAL

NEW MEXICO

NAG 9 992 COLLEGE OF SANTA FE **6990**
MOBILE SCIENCE PROJECT
 02/27/1998 - 12/30/1998 FY98: \$130,000 Total: \$130,000
Prin. Invest.: B COLEMAN
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 972 EASTERN NEW MEXICO UNIVERSITY - MAIN CAMPUS **6991**
SUMMER SMET CAMP FOR RURAL MINORITIES GIRLS
 09/24/1997 - 09/30/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: J MILLER
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 4 139 NEW MEXICO HIGHLANDS UNIVERSITY **6992**
A NON-INTRUSIVE AIRSPEED INDICATOR FOR TRANSONIC AIRCRAFT
APPLICATION
 09/17/1997 - 09/09/1998 FY98: \$0 Total: \$95,500
Prin. Invest.: J P CLARK
Tech. Officer: DFRC/T MOSE, DFRC/E COX
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 6532 NEW MEXICO HIGHLANDS UNIVERSITY **6993**
ALLIANCE FOR NONLINEAR OPTICS
 12/07/1997 - 05/31/1999 FY98: \$1,200,000 Total: \$1,200,000
Prin. Invest.: R CLARK
Tech. Officer: GSFC/J MALONE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1057 NEW MEXICO HIGHLANDS UNIVERSITY **6994**
SYNTHESIS AND PREPARATION OF PHTHALOCYANINE THIN FILMS FOR
NONLINEAR OPTICS
 05/26/1994 - 10/31/1996 FY98: -\$9,027 Total: \$289,313
Prin. Invest.: R D CLARK
Tech. Officer: MSFC/B G PENN
CASE Category: 12 - CHEMISTRY

NAG 8 1288 NEW MEXICO HIGHLANDS UNIVERSITY **6995**
R/S INVESTIGATION OF REVERSE SATURABLE ABSORPTION OF PHTHALOCYANINES FOR OPTICAL LIMITING APPLICATIONS
 10/25/1996 - 01/31/1998 FY98: \$0 Total: \$99,910
Prin. Invest.: R D CLARK, D SANGHADASA
Tech. Officer: MSFC/B G PENN, MSFC/A D SHIELDS
CASE Category: 13 - PHYSICS

NAG10 161 NEW MEXICO HIGHLANDS UNIVERSITY **6996**
FUZZY MICRO CONTROLLERS FOR CELSS APPLICATIONS
 06/05/1995 - 06/08/1998 FY98: \$0 Total: \$0
Prin. Invest.: B TAYLOR
Tech. Officer: KSC/J SAGER
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 90070 NEW MEXICO HIGHLANDS UNIVERSITY **6997**
INTEGRATED APPROACH TO ENGINEERING EDUCATION IN A MINORITY
 09/29/1992 - 12/31/1996 FY98: -\$154,167 Total: \$668,904
Prin. Invest.: B TAYLOR
Tech. Officer: DFRC/E COX
CASE Category: 49 - ENGINEERING, OTHER

NGT 4 90070 NEW MEXICO HIGHLANDS UNIVERSITY **6998**
AN INTEGRATED APPROACH TO ENGINEERING EDUCATION IN A MINORITY COMMUNITY
 05/29/1997 - 05/29/1998 FY98: \$154,167 Total: \$154,167
Prin. Invest.: B TAYLOR
Tech. Officer: DFRC/E COX
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 90042 NEW MEXICO HIGHLANDS UNIVERSITY **6999**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH
 02/11/1997 - 06/30/1999 FY98: \$0 Total: \$88,000
Prin. Invest.: B TAYLOR
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90069 NEW MEXICO HIGHLANDS UNIVERSITY **7000**
AMERICAN INDIAN SCIENCE AND TECHNOLOGY EDUCATION C
 04/04/1997 - 11/30/1998 FY98: \$1,000,000 Total: \$2,400,822
Prin. Invest.: J C'DE BACA
Tech. Officer: GSFC/M STOUYSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 2847 NEW MEXICO INSTITUTE OF MINING & TECH **7001**
RADIATIVE PROCESSES AND TRACE GASES IN THE MIDDLE ATMOSPHERE
 12/21/1994 - 01/14/1998 FY98: \$0 Total: \$35,000
Prin. Invest.: K MINSCHWANER
Tech. Officer: GSFC/C JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4139 NEW MEXICO INSTITUTE OF MINING & TECH **7002**
OBSERVATIONS & ANALYSIS OF ATMOSPHERIC HYDROXYL
 03/17/1997 - 03/14/1999 FY98: \$44,510 Total: \$86,298
Prin. Invest.: K MINSCHWANER
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7109 NEW MEXICO INSTITUTE OF MINING & TECH **7003**
GROUND BASED MEASUREMENTS OF TOTAL OZONE, CLOUD PROPERTIES, AND UVDOSES
 03/25/1998 - 03/31/1999 FY98: \$34,646 Total: \$34,646
Prin. Invest.: D R MINSCHWANER
Tech. Officer: GSFC/J HERMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1123 NEW MEXICO INSTITUTE OF MINING & TECH **7004**
ANALYSIS OF TOGA COARE LIGHTNING DATA
 02/22/1995 - 05/16/1998 FY98: \$0 Total: \$65,968
Prin. Invest.: M BROOK
Tech. Officer: MSFC/R J BLAKESLEE, MSFC/H J CHRISTIAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4887 NEW MEXICO INSTITUTE OF MINING & TECH **7005**
OBSERVATION AND ANALYSIS OF ATMOSPHERIC HYDROXYL
 12/13/1995 - 09/30/1997 FY98: -\$9,638 Total: \$32,334
Prin. Invest.: K MINSCHWANER
Tech. Officer: HC/M J KURYLO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG10 188 NEW MEXICO INSTITUTE OF MINING & TECH **7006**
COMPARISON OF OBSERVATIONS FROM KSC LIDAR SYSTEM WITH RADAR OBSERVATIONS FOR IDENTIFICATION OF MICROLO
 03/26/1996 - 10/23/1998 FY98: \$0 Total: \$20,667
Prin. Invest.: W FISON
Tech. Officer: KS/C/L MAIER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30169 NEW MEXICO INSTITUTE OF MINING & TECH **7007**
COMBINED SIMULATION OF ALPINE GLACIERS AND CLOSED-BASIN LAKES: THE KEY TO DETERMINING THE LONG-TERM
 09/01/1998 - 08/1/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: F M PHILLIPS, PLUMMER
Tech. Officer: GS/C/M Y WEI
CASE Category: 11 - ASTRONOMY

NAG 1 1868 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7008**
ACTIVE CONTROL OF AERODYNAMIC NOISE SOURCES BY 1/3
 09/20/1996 - 09/30/1999 FY98: \$15,700 Total: \$203,116
Prin. Invest.: G A REYNOLDS, NONE
Tech. Officer: LAF/C/R W WLEZIEN
CASE Category: 11 - AERONAUTICAL ENGR

NAG 2 6007 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7009**
THEORETICAL & OBSERVATIONAL STUDIES OF SOLAR & EXTRA SOLAR PLANETARY ATMOSPHERES
 10/16/1996 - 12/31/1998 FY98: \$48,300 Total: \$240,175
Prin. Invest.: M MURLEY
Tech. Officer: ARC/C P MCKAY, ARC/A J HATCH
CASE Category: 1 - ASTRONOMY

NAG 5 1491 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7010**
TELEMETERING AND TELECOMMUNICATIONS RESEARCH
 12/10/1990 - 10/31/1998 FY98: \$200,000 Total: \$5,610,221
Prin. Invest.: W P OSBORNE, S HORAN
Tech. Officer: GSFC/W MILLER
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 1516 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7011**
OPTICAL AND GAMMA RAY STUDY OF GRO PHASE I TARGETS
 04/17/1991 - 02/28/1998 FY98: \$0 Total: \$230,923
Prin. Invest.: B J MCNAMARA
Tech. Officer: GSFC/J P NORRIS, GSFC/D A KNIFFEN
CASE Category: 1 - ASTRONOMY

NAG 5 2426 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7012**
A NEW APPROACH TO MODELLING THE FAR-INFRARED RADIATION IN GALAXIES
 11/10/1993 – 11/14/1998 FY98: \$0 Total: \$143,322
Prin. Invest.: R A WALTERBOS
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3114 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7013**
THE BEHAVIOR OF GAMMA-RAY BURSTS IN THE 7–14 KEV BANDPASS: FLUENCES, STRUCTURE, DURATION, AND DELAY
 10/19/1995 – 10/31/1997 FY98: \$0 Total: \$40,000
Prin. Invest.: T E HARRISON, NONE
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3304 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7014**
ANALYSIS OF DATA ON THE ENERGY SPECTRUM AND CHARGE AND ISOTOPIC COMPOSITION OF GALACTIC COSMIC.....
 07/24/1996 – 01/31/1999 FY98: \$0 Total: \$98,837
Prin. Invest.: W R WEBBER
Tech. Officer: GSFC/T VON ROSENINGE
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 3312 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7015**
X-RAY PROPERTIES OF RADIO GALAXIES AND THE FR VII DIVISION
 07/31/1996 – 01/31/1998 FY98: \$0 Total: \$9,729
Prin. Invest.: M LEDLOW
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 3362 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7016**
STUDIES OF ASTROPHYSICAL PLASMAS IN CLUSTERS OF GALAXIES
 08/28/1996 – 12/31/1998 FY98: \$0 Total: \$148,900
Prin. Invest.: J O BURNS
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3410 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7017**
ASCA OBSERVATIONS OF ROSAT ALL SKY SURVEY SELECTED GROUPS
 09/11/1996 – 09/14/1998 FY98: \$0 Total: \$11,750
Prin. Invest.: J BURNS
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3517 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7018**
THE BEHAVIOR OF GAMMA-RAY BURSTS IN THE 7–14 KEV B STRUCTURE, DURATIONS, AND DELAYS
 11/27/1996 – 11/30/1997 FY98: \$0 Total: \$30,000
Prin. Invest.: T E HARRISON
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3698 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7019**
THE CONTINUATION OF THE BCN GLOBAL GRB RAPID RESPONSE
 01/22/1997 – 01/31/1999 FY98: \$0 Total: \$34,874
Prin. Invest.: B J MCNAMARA
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3842 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7020**
MODELLING X-RAY CLUSTERS: EVOLUTION AND REALISTIC
 02/25/1997 – 02/28/1999 FY98: \$99,768 Total: \$194,783
Prin. Invest.: A KLYPIN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4402 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7021**
MONITORING BASTE GAMMA-RAY BURSTS FOR POST-BURST, X-RAY EMISSION
 05/01/1997 – 05/14/1999 FY98: \$0 Total: \$39,648
Prin. Invest.: T HARRISON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4757 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7022**
HRI OBSERVATIONS OF DISTANT ABELL CLUSTERS
 06/23/1997 – 08/31/1997 FY98: -\$10,000 Total: \$0
Prin. Invest.: J O BURNS
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 4987 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7023**
MODEL ATMOSPHERES AND SPECTRA FOR EXTRASOLAR GIANT
 06/26/1997 – 06/14/1999 FY98: \$22,500 Total: \$71,800
Prin. Invest.: D MARLEY
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 5060 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7024**
SEARCHING FOR ANTIMATTER AND COSMIC RAY STUDIES USING BESS
 05/01/1996 – 12/31/1998 FY98: \$32,000 Total: \$88,318
Prin. Invest.: S J STOCHAJ
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5068 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7025**
WIZARD-RELATED BALLOON PROGRAM FUNDING FOR THE FIRST YEAR OF THE GRANT
 05/03/1996 – 12/31/1998 FY98: \$688,671 Total: \$934,671
Prin. Invest.: S J STOCHAJ
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5073 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7026**
A RESEARCH PROGRAM IN COSMIC RAY ASTRONOMY AND RELATED LABORATORY MEASUREMENTS
 05/03/1996 – 12/31/1998 FY98: -\$220,538 Total: \$80,000
Prin. Invest.: W P WEBBER
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 – PHYSICS

NAG 5 5159 NEW MEXICO STATE UNIVERSITY – LAS CRUCES **7027**
AN IMAGING SILICON CALORIMETER FOR USE ON ACCESS INCREMENTAL FUNDING FOR FIRST YEAR OF GRANT
 03/26/1998 – 12/31/1998 FY98: \$81,000 Total: \$81,000
Prin. Invest.: S J STOCHAJ
Tech. Officer: GSFC/B A MERRITT
CASE Category: 11 – ASTRONOMY

NAG 5 6193 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7028**
ADVANCEMENT IN DETERMINING HAZARDOUS VOLATILE ORGANIC COMPOUNDS
 09/10/1997 - 01/31/1999 FY98: \$0 Total: \$151,958
Prin. Invest.: D EICEMAN
Tech. Officer: GSFC/G FOGLEMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6897 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7029**
EFFECTS OF RHEOLOGY ON THE DYNAMICS AND EVOLUTION OF MARS AND VENUS
 01/21/1998 - 12/31/1998 FY98: \$47,277 Total: \$47,277
Prin. Invest.: V SOLOMATOV
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7520 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7030**
CENTER FOR TELEMETERING AND TELECOMMUNICATION SYSTEMS
 07/28/1998 - 04/30/1999 FY98: \$500,000 Total: \$500,000
Prin. Invest.: S HORAN, NONE
Tech. Officer: GSFC/W MILLER
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 7524 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7031**
TRANSPORTATION OF ENERGETIC PARTICLES IN THE GALAXY - APPROVED UNDER NASA 97-OSS-12
 06/09/1998 - 06/14/1999 FY98: \$11,611 Total: \$11,611
Prin. Invest.: W R WEBBER
Tech. Officer: GSFC/F C JONES
CASE Category: 11 - ASTRONOMY

NAG 9 938 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7032**
3D MULTIPHASE - FLOW MODELING OF OXYGEN FLOW SYSTEMS
 04/21/1997 - 09/30/1998 FY98: \$8,350 Total: \$191,173
Prin. Invest.: I H LESLIE
Tech. Officer: JSC/J M STOLTZFUS
CASE Category: 46 - MECHANICAL ENGR

NAGW 110 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7033**
CONTINUATION OF A COSMIC RAY RESEARCH PROGRAM USING
 08/01/1980 - 12/31/1996 FY98: \$0 Total: \$2,915,813
Prin. Invest.: R L GOLDEN
Tech. Officer: HQ/M M MELLOTT, HQ/W V JONES
CASE Category: 11 - ASTRONOMY

NAGW 4558 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7034**
ADVANCEMENT IN DETERMINING HAZARDOUS VOLATILE ORGANIC COMPOUNDS
 05/31/1995 - 09/30/1997 FY98: \$0 Total: \$290,806
Prin. Invest.: G A EICEMAN
Tech. Officer: HQ/G C FOGLEMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAS 5 31125 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7035**
O/M OF NATIONAL SCIENTIFIC BALLOON FACILITY & ENGINEERING SUPPORT FOR NASA BALLOON PROGRAM
 09/14/1992 - 02/28/1998 FY98: \$5,200,281 Total: \$74,819,980
Prin. Invest.: J E HALLIGAN
Tech. Officer: GSFC/R S NOCK, GSFC/H C NEEDLEMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 32252 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7036**
SOUNDING ROCKET ENGINEERING SUPPORT
 04/21/1995 - 04/30/1998 FY98: \$2,629,653 Total: \$11,643,463
Prin. Invest.: A BAKER
Tech. Officer: GSFC/N SCHULTZ
CASE Category: 45 - ELECTRICAL ENGR

NAS 5 98009 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7037**
BALLOON SERVICES
 02/17/1998 - 02/18/2003 FY98: \$16,299,192 Total: \$16,299,192
Prin. Invest.: N APPLICABLE
Tech. Officer: WFF/R S NOCK, WFF/B A MERRITT
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 1002 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7038**
COCKPIT INTERRUPTIONS, DISTRACTIONS, & RECOVERY - A STUDY OF MEMORY & DIVIDED ATTENTION IN THE
 07/29/1997 - 06/30/1999 FY98: \$78,814 Total: \$157,231
Prin. Invest.: G E YOUNG
Tech. Officer: ARC/R K DISMUKES
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 40019 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7039**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 03/12/1990 - 09/30/1997 FY98: \$0 Total: \$2,538,850
Prin. Invest.: S H IRAN
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51383 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7040**
GRADUATE STUDIES RESEARCHERS PROGRAM
 06/26/1995 - 06/30/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: M S MARLEY
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 - ASTRONOMY

NGT 5 40061 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7041**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM.
 03/04/1997 - 01/31/1999 FY98: \$553,000 Total: \$933,000
Prin. Invest.: P HYNES
Tech. Officer: HQ/I DASCH
CASE Category: 19 - MULTI INTERDISCIPL, OTHER

NGT 5 50019 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7042**
EXPANDING SHEELS, HOT GAS, AND THE VIOLENT INTERSTELLAR MEDIUM
 07/14/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: R W LTERBOS
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 19 - MULTI INTERDISCIPL, OTHER

NGT 5 50117 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7043**
DIRECT SOLUTION OF LARGE, SPARSE SYSTEMS OF EQUATIONS
 09/06/1997 - 06/30/1999 FY98: \$22,000 Total: \$42,500
Prin. Invest.: S CASTILLO
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 19 - MULTI INTERDISCIPL, OTHER

NASA'S UNIVERSITY PROGRAM

NGT 5 50148 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7044**
ENERGY BALANCE IN URANUS' ATMOSPHERE THE LUMINOSITY
RECIPIENT: CHARLES M. WALTER
 09/10/1997 - 06/30/1998 FY98: \$0 Total: \$11,000
Prin. Invest.: M MARLEY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90054 NEW MEXICO STATE UNIVERSITY - LAS CRUCES **7045**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 02/12/1997 - 08/14/1998 FY98: \$0 Total: \$136,776
Prin. Invest.: P HYNES
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 937 SOUTHWESTERN INDIAN POLYTECHNIC INSTITUTE **7046**
SIPI PACE/MSET PROGRAM
 04/09/1997 - 04/08/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: J A JOHNSON
Tech. Officer: JSC/L M ARMENDARIZ
CASE Category: 79 - SOCIAL SCIENCE, OTHER

NAG 1 2018 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7047**
SIMULATION OF FLOW CONTROL USING DEFORMABLE SURFACES
 03/17/1998 - 03/16/1999 FY98: \$99,968 Total: \$99,968
Prin. Invest.: C R TRUMAN
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 - AERONAUTICAL ENGINEERING

NAG 2 1196 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7048**
NASA CENTER FOR AUTONOMOUS CONTROL ENGINEERING (AC) AT THE UNM
 03/26/1998 - 12/31/1998 FY98: \$1,795,297 Total: \$1,795,297
Prin. Invest.: M JAMSHIDI, R LUMIA
Tech. Officer: ARC/G S LEE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 1976 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7049**
NEW PHENOMENA IN STRONGLY COUNTERFLOWING HE-II
 10/22/1996 - 09/30/2000 FY98: \$88,000 Total: \$176,000
Prin. Invest.: S T BOYD, R V DUNCAN, M J ADVIAANS
Tech. Officer: LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 2008 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7050**
NUMERICAL ANALYSIS OF COMPLEX PHYSICAL PROCESSES IN REACTION DYNAMICS
 01/28/1997 - 01/14/1999 FY98: \$0 Total: \$83,734
Prin. Invest.: T HAGSTROM
Tech. Officer: LERC/J W GOODRICH, LERC/D A JACQMIN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 5 2609 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7051**
HIGH PERFORMANCE COMMUNICATION VLSI ARCHITECTURES
 06/13/1994 - 06/30/1998 FY98: \$0 Total: \$1,535,000
Prin. Invest.: G K MAKI, S WHITAKER, K CAMERON
Tech. Officer: GSFC/W H MILLER, GSFC/P S YEH
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 3568 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7052**
USERC PROGRAM AND DESIGN OF VLSI PROCESSORS AND TEST FLIGHT AND GROUND SYSTEMS
 02/19/1997 - 12/31/1998 FY98: \$1,100,000 Total: \$2,400,000
Prin. Invest.: G K MAKI
Tech. Officer: GSFC/W MILLER
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 4253 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7053**
MICROBEAM STUDIES OF PLANETARY MATERIALS/SUPPORT FOR TRON MICROSCOPE
 04/01/1997 - 12/14/1998 FY98: \$259,000 Total: \$526,000
Prin. Invest.: D J PAPIKE
Tech. Officer: GSFC/J M BOYCE
CASE Category: 12 - CHEMISTRY

NAG 5 4441 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7054**
PETROLOGY OF PRESOLAR DUST AND ALTERATION IN CHONDRITE
 04/28/1997 - 03/31/1999 FY98: \$64,167 Total: \$174,167
Prin. Invest.: D J RIETMEIJER
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4619 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7055**
METEORITES AND SMALL PRIMITIVE SOLAR SYSTEM BODIES
 05/20/1997 - 05/14/1999 FY98: \$33,333 Total: \$73,333
Prin. Invest.: D J BREARLEY
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4935 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7056**
MICROSTRUCTURAL STUDIES BEARING ON THE ORIGIN OF CARBON-ASSOCIATED MINERALS IN MARTIAN METEORITE ALH 8400
 06/23/1997 - 06/30/1999 FY98: \$11,667 Total: \$54,667
Prin. Invest.: A J BREARLEY
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6105 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7057**
DECIPHERING SULFUR ISOTOPIC SYSTEMATICS AS A POTENTIAL
 07/24/1997 - 01/31/1999 FY98: \$0 Total: \$49,000
Prin. Invest.: C SHEARER
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 6417 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7058**
X-RAY PROPERTIES OF RADIO GALAXIES AND THE FR II DIVISION
 11/25/1997 - 11/30/1998 FY98: \$2,800 Total: \$2,800
Prin. Invest.: M LEDLOW
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6739 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7059**
THE X-RAY PROPERTIES OF RICH CLUSTERS FROM Z=0-0.2 USING THE ROSAT ALL-SKY SURVEY
 12/19/1997 - 12/31/1998 FY98: \$51,800 Total: \$51,800
Prin. Invest.: M LEDLOW
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

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| NAG 5 6999 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7060 RIPARIAN ECOSYSTEM RESTORATION: EFFECTS OF FLOODING AND VEGETATION TYPE ON ANNUAL EVAPOTRANSPIRATION 02/17/1998 - 02/14/2001 FY98: \$700,000 Total: \$700,000 Prin. Invest.: C N DAHM Tech. Officer: GSFC/A C JANETOS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 9 1042 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7068 1998 NASA TRAINING PROJECT 07/01/1998 - 06/30/1999 FY98: \$450,200 Total: \$450,200 Prin. Invest.: J D TORRES Tech. Officer: JSC/L ARMENDARIZ CASE Category: 11 - ASTRONOMY |
| NAG 5 7006 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7061 GRANT TITLE: "HIGH PERFORMANCE IMAGE PROCESSOR FOR SPACE" GSFC#5-3358. 02/17/1998 - 02/14/1999 FY98: \$85,000 Total: \$85,000 Prin. Invest.: G MAKI Tech. Officer: GSFC/W H MILLER CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NAGW 3626 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7069 LAYER SILICATES AND CARBONACEOUS MATERIALS IN CHONDRITE INTERPLANETARY DUST 06/02/1993 - 03/31/1998 FY98: \$0 Total: \$355,679 Prin. Invest.: F RITMEIJER Tech. Officer: HQ/I BOYCE CASE Category: 12 - GEOLOGICAL SCIENCE |
| NAG 5 7360 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7062 TITLE: "CULPRIT". GSFC CONTROL #5-3394, (4/1/98 THRU 9/30/98) FIRST YEAR FUNDS FOR THE UNSOLICIT 05/15/1998 - 05/14/1999 FY98: \$300,000 Total: \$300,000 Prin. Invest.: G MAKI Tech. Officer: GSFC/W H MILLER CASE Category: 45 - ELECTRICAL ENGR | NAGW 3646 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7070 PETROLOGICAL ANALYSIS OF ASTROPHYSICAL DUST ANALOG EVOLUTION 08/06/1993 - 02/28/1997 FY98: -\$292 Total: \$131,480 Prin. Invest.: F RITMEIJER Tech. Officer: HQ/LA NUTH III CASE Category: 19 - PHYSICAL SCIENCE, OTHER |
| NAG 5 7586 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7063 HIGH PERFORMANCE DATA COMPRESSION VLSI ARCHITECTURES 07/09/1998 - 04/30/1999 FY98: \$329,000 Total: \$329,000 Prin. Invest.: G MAKI Tech. Officer: GSFC/W H MILLER CASE Category: 49 - ENGINEERING, OTHER | NAG10 160 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7071 CHEMICAL SENSORS 06/27/1995 - 07/31/1998 FY98: \$96,687 Total: \$297,503 Prin. Invest.: G LOHMEYER Tech. Officer: KSC/I SAGER CASE Category: 53 - LIFE SCIENCE, OTHER |
| NAG 5 7691 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7064 PROVIDES SUPPORT FOR THE FEDERATION EXPERIMENT EXECUTIVE COMMITTEE 09/18/1998 - 09/30/1999 FY98: \$89,000 Total: \$89,000 Prin. Invest.: S MORAIN Tech. Officer: GSFC/M MAIDEN CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NCC 5 309 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7072 PERFORMING A REGIONAL ASSESSMENT & PROTOTYPING INTERNET ACCESSIBLE MTE PRODUCTS TO THE UPPER RIO 04/09/1998 - 02/28/2001 FY98: \$130,000 Total: \$130,000 Prin. Invest.: S MORAIN Tech. Officer: GSFC/A TUYAHOV CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAG 9 947 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7065 GRANT FOR DEVELOPMENT OF A LOW COST RADIATION TOLERANT STANDARD CELL LIBRARY 06/19/1997 - 06/19/1998 FY98: \$0 Total: \$88,000 Prin. Invest.: J W GAMBLES Tech. Officer: JSC/R L SHULER CASE Category: 49 - ENGINEERING, OTHER | NCC 5 350 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7073 PREPARATION FOR UNIVERSITY OF STUDENTS IN UNDERGRADUATE EDUCATION 07/01/1998 - 07/31/2003 FY98: \$499,627 Total: \$499,627 Prin. Invest.: M JAMSHIDI Tech. Officer: HQ/B WHITE CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAG 9 995 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7066 DESIGN & DEVELOP INTELLIGENT BIOMIMETIC ROBOTS 03/12/1998 - 03/30/1999 FY98: \$100,000 Total: \$100,000 Prin. Invest.: M SHAHINPOOR Tech. Officer: JSC/K KRISHNAN CASE Category: 45 - ELECTRICAL ENGR | NCCW 87 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7074 CENTER FOR AUTONOMOUS CONTROL ENGINEERING 08/04/1995 - 06/30/2000 FY98: \$0 Total: \$2,507,941 Prin. Invest.: T L COLEMAN Tech. Officer: HQ/B WHITE CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 9 1017 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7067 STIMULUS FOR STUDENTS TO STUDY PRE COLLEGE MATH 05/28/1998 - 07/31/1999 FY98: \$99,660 Total: \$99,660 Prin. Invest.: H E NEWSOM Tech. Officer: JSC/L ARMENDARIZ CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NCC13 98002 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 7075 AFFILIATED RESEARCH CENTER PROGRAM-COMMERCIAL RE- MOTE SENSING PARTNERSHIPS WITH INDUSTRY 08/11/1998 - 08/10/2001 FY98: \$50,000 Total: \$50,000 Prin. Invest.: S A MORAIN Tech. Officer: SSC/H CARR CASE Category: 99 - MULTI INTERDISCIPL, OTHER |

NGT 5 30045 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7076**
NASA TRAINING PROJECT
 07/15/1997 - 06/30/1998 FY98: \$0 Total: \$450,199
Prin. Invest.: J TORRES
Tech. Officer: GSFC/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90050 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7077**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 02/12/1997 - 08/14/1998 FY98: \$0 Total: \$68,000
Prin. Invest.: G WARD
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 43 - CHEMICAL ENGR

NGT 9 31 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7078**
TRAINING GRANT
 06/03/1998 - 07/14/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J J PAPIKE
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT32 4770 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE **7079**
THE TRAINING OF 12 STUDENTS IN A PRE-COOPERATIVE EDUCATION PROGRAM
 06/25/1977 - 05/31/1997 FY98: \$0 Total: \$3,206,852
Prin. Invest.: M LEE
Tech. Officer: HQ/O A GUTIERREZ
CASE Category: 49 - ENGINEERING, OTHER

NEW YORK

NAG 5 6956 BARNARD COLLEGE **7080**
THE SPECTRA OF BL LAC OBJECTS BETWEEN GEV AND TEV ENERGIES
 02/06/1998 - 01/31/1999 FY98: \$13,946 Total: \$13,946
Prin. Invest.: R MUKHERJEE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7341 BARNARD COLLEGE **7081**
STUDY OF THE CORRELATED MULTIWAVELENGTH VARIABILITY OF PKS 0528+134
 05/28/1998 - 01/31/1999 FY98: \$21,994 Total: \$21,994
Prin. Invest.: R MUKHERJEE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NCC 2 963 BROOKLYN COLLEGE **7082**
BRAIN-PITUITARY AXIS DEVELOPMENT IN THE C.E.B.A.S. MINI-MODULE
 08/07/1996 - 06/30/1999 FY98: \$130,000 Total: \$358,102
Prin. Invest.: M P SCHREIBMAN
Tech. Officer: ARC/D A REISS-BUBENHEIM, ARC/W E HINDS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 7473 CAYUGA COUNTY COMMUNITY COLLEGE **7083**
DEFINING EARTH SYSTEM ENTERPRISE INFO NEEDS & PILOT PROGRAMS FOR UTILIZATION BY LOCAL GOVERNMENT
 06/15/1998 - 06/14/1999 FY98: \$450,000 Total: \$450,000
Prin. Invest.: R BROWN
Tech. Officer: GSFC/W CAMPBELL
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 6085 CITY UNIV OF NY HERBERT H. LEHMAN COLLEGE **7084**
PACE/MSET AWARD
 09/03/1997 - 06/30/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: A L ROTHSTEIN
Tech. Officer: HQ/M STOUSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 5180 CITY UNIV OF NY HERBERT H. LEHMAN COLLEGE **7085**
PACE/MSET PROGRAM
 09/23/1996 - 06/30/1997 FY98: -\$165 Total: \$99,835
Prin. Invest.: A L ROTHSTEIN
Tech. Officer: HQ/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2057 CITY UNIV. OF NY HOSTOS COMMUNITY COLL. **7086**
HOSTOS EARLY LEARNING COMMUNITIES
 08/19/1997 - 06/30/1999 FY98: \$0 Total: \$75,000
Prin. Invest.: G MELENDEZ-DELANEY
Tech. Officer: LERC/D CENTENO-GOMEZ
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 1 1590 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7087**
STUDIES OF SHOCK WAVE INTERACTIONS WITH HOMOGENEOUS AND ISOTROPIC TURBULENCE
 03/01/1994 - 08/31/1997 FY98: \$0 Total: \$226,085
Prin. Invest.: C WATKINS, Y ANDREPOULOS
Tech. Officer: LARC/D M BUSHNELL
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1913 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7088**
USING THE SCIENCE OF EVERYDAY OBJECTS TO TEACH SCIENCE A DISSEMINATION PLAN
 04/03/1997 - 03/02/1999 FY98: \$1 Total: \$30,001
Prin. Invest.: J M SCHLEIN
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 2028 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7089**
EIGENSTRUCTURE ASSIGNMENT FOR FAULT TOLERANT FLIGHT CONTROL DESIGN
 03/09/1998 - 01/31/1999 FY98: \$99,334 Total: \$99,334
Prin. Invest.: K SOBEL
Tech. Officer: LARC/S M JOSHI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1836 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7090**
MOLECULAR DYNAMICS OF FLUID-SOLID SYSTEM
 04/19/1996 - 04/30/2000 FY98: \$118,000 Total: \$368,000
Prin. Invest.: J KOPLIK, J BANAVAR
Tech. Officer: LERC/B SINGH
CASE Category: 13 - PHYSICS

NAG 3 2074 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7091**
PICOSECOND GATED OPTICAL IMAGING OF DENSE FUEL SPRAYS
 09/17/1997 - 07/15/2000 FY98: \$0 Total: \$99,998
Prin. Invest.: P P HO
Tech. Officer: LERC/K J BREISACHER, LERC/L LIU
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2163 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7092**
HIGH RESOLUTION EXPERIMENTS OF COMPRESSIBLE TURBULENCE INTERACTING WITH EXPANSION OR SHOCK WAVES
 08/24/1998 - 04/05/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: Y ANDREOPOULOS
Tech. Officer: LERC/D O DAVIS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2167 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7093**
USING SURFACTANTS TO ENHANCE THERMOCAPILLARY MIGRATION OF BUBBLES & DROPS & FACILITATE DROP SPREAD
 05/26/1998 - 04/12/2001 FY98: \$74,973 Total: \$74,973
Prin. Invest.: C MالدARELLI, R BALASUBRAMANIAN
Tech. Officer: LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 5 3476 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7094**
CUNY COLLABORATIVE MASTAP SUMMER INSTITUTE
 11/18/1996 - 12/30/1998 FY98: \$0 Total: \$196,946
Prin. Invest.: J SCHLEIN
Tech. Officer: GSFC/M MATEU
CASE Category: 21 - MATHEMATICS

NAG 5 4019 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7095**
CONTINUATION OF GRANT
 03/03/1997 - 11/30/1998 FY98: \$100,000 Total: \$200,000
Prin. Invest.: D AKINS
Tech. Officer: GSFC/S GLICKER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4911 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7096**
ADVANCING MINORITIES IN SCIENCE AND ENGINEERING EDUCATION
 07/16/1997 - 05/31/1999 FY98: \$161,556 Total: \$318,109
Prin. Invest.: J BARBA
Tech. Officer: GSFC/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6952 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7097**
TUNABLE SOLID STATE LASERS AND OPTICAL IMAGING
 02/02/1998 - 08/31/1998 FY98: \$901,253 Total: \$901,253
Prin. Invest.: R R ALFANO
Tech. Officer: GSFC/J MALONE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 7129 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7098**
ROBUST ALGORITHMS FOR IMAGE REGISTRATION
 03/11/1998 - 03/14/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: G WOLBERG
Tech. Officer: GSFC/J TILTON
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 7160 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7099**
HIGH DENSITY SOLID STATE MEMORIES
 03/11/1998 - 03/14/1999 FY98: \$96,497 Total: \$96,497
Prin. Invest.: K SHUM
Tech. Officer: GSFC/A GARRISON-DARRIN
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 7532 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7100**
LET'S DO SCIENCE
 06/11/1998 - 05/31/2000 FY98: \$187,506 Total: \$187,506
Prin. Invest.: J SCHLEIN
Tech. Officer: HQ/3 WHITE
CASE Category: 19 - MULTI INTERDISCIPL, OTHER

NAGW 3860 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7101**
POSTURE LOAD INDUCED BONE MAINTENANCE
 01/26/1994 - 06/30/1997 FY98: -\$7,686 Total: \$232,314
Prin. Invest.: S CCWIN
Tech. Officer: HQ/3 M SULZMAN
CASE Category: 16 - MECHANICAL ENGR

NAGW 4098 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7102**
TUNABLE SOLID STATE LASERS AND OPTICAL IMAGING
 08/02/1994 - 12/31/1997 FY98: \$0 Total: \$1,799,120
Prin. Invest.: R ALFANO
Tech. Officer: HQ/3 L WHITE
CASE Category: 3 - PHYSICS

NAGW 4118 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7103**
ELECTRON COLLISIONS WITH FREE RADICALS
 08/17/1994 - 12/31/1997 FY98: -\$22 Total: \$119,978
Prin. Invest.: K BECKER
Tech. Officer: HQ/1 BERGARAN
CASE Category: 11 - ATMOSPHERIC SCIENCE

NAGW 4211 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7104**
CUNY COLLABORATIVE MASTAP SUMMER INSTITUTE
 12/07/1994 - 08/31/1997 FY98: \$0 Total: \$330,470
Prin. Invest.: J DAVIS
Tech. Officer: HQ/3 RUSSELL
CASE Category: 19 - MULTI INTERDISCIPL, OTHER

NAGW 4576 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7105**
ADVANCING MINORITIES IN SCIENCE AND ENGINEERING EDUCATION
 06/13/1995 - 03/31/1997 FY98: -\$1 Total: \$307,199
Prin. Invest.: J BARBA
Tech. Officer: HQ/1 MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 3 607 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7106**
THE SYNERGISM OF ELECTORHEOLOGICAL RESPONSE, DIELECTROPHORESIS AND SHEAR-INDUCED DIFFUSION IN FLOW
 04/07/1998 - 01/31/2001 FY98: \$60,000 Total: \$60,000
Prin. Invest.: A CARRIVOS
Tech. Officer: LERC/F D CHIARAMONTE
CASE Category: 16 - MECHANICAL ENGR

NCC 5 74 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7107**
COOPERATIVE RESEARCH AND EDUCATION
 06/28/1994 - 06/30/1998 FY98: \$151,300 Total: \$1,536,950
Prin. Invest.: L P JONES, J W FROST
Tech. Officer: GSFC/D TRAVIS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 98 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7108**
AN URBAN COLLABORATION FOR NETWORK CONNECTIVITY AND
INTERNET ACCESS
 09/13/1995 – 09/14/1999 FY98: \$121,000 Total: \$1,521,000
Prin. Invest.: S AUSTIN
Tech. Officer: GSFC/J BENNETT
CASE Category: 22 – COMPUTER SCIENCE

NCC 5 206 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7109**
PRESERVATION OF THE ENVIRONMENT THROUGH EDUCATION SENSING
OF THE ATMOSPHERE AND OF LAND-USE/LAND-CO
 06/17/1997 – 05/31/1999 FY98: \$100,000 Total: \$300,000
Prin. Invest.: R KHANBILVARDI
Tech. Officer: GSFC/A A LACIS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 5 343 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7110**
COOPERATIVE RESEARCH & EDUCATION PROGRAM: INSTITUTE ON CLI-
MATE AND PLANETS
 06/23/1998 – 06/30/1999 FY98: \$344,298 Total: \$344,298
Prin. Invest.: N A PARKER
Tech. Officer: GSFC/L TRAVIS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 5 344 CITY UNIVERSITY OF NEW YORK CITY COLLEGE **7111**
INTEGRATION OF RESEARCH AND EDUCATION IN REMOTE SENSING
AND ENVIRONMENTAL CLIMATE RESEA
 07/15/1998 – 06/30/2003 FY98: \$500,000 Total: \$500,000
Prin. Invest.: R KHANBILVARDI
Tech. Officer: HQ/B WHITE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1423 CITY UNIVERSITY OF NEW YORK SYSTEM **7112**
R/S OBJECTIVE OPERATIONAL UTILIZATION OF SATELITE MICROWAVE
SCATTEROMETER OBSERVATION OF TROPICAL
 01/01/1998 – 12/31/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: W J PIERSON
Tech. Officer: MSFC/J M SIMONDS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 5 129 CITY UNIVERSITY OF NEW YORK SYSTEM **7113**
RESEARCH IN GLOBAL CLIMATE VARIABILITY
 01/18/1996 – 12/31/1998 FY98: \$0 Total: \$610,000
Prin. Invest.: N A PARKER
Tech. Officer: GSFC/B E CARLSON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 5 90060 CITY UNIVERSITY OF NEW YORK SYSTEM **7114**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 02/06/1997 – 08/14/1997 FY98: \$0 Total: \$92,000
Prin. Invest.: C WATKINS
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 45 – ELECTRICAL ENGR

NAG 1 1699 CLARKSON UNIVERSITY **7115**
JET MIXING ENHANCEMENT BY FEEDBACK CONTROL
 03/08/1995 – 05/31/1998 FY98: \$49,999 Total: \$181,946
Prin. Invest.: M GLAUSER, T CORKE, G BERKOOZ
Tech. Officer: LARC/J M SEINER, LARC/M K PONTON
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 1122 CLARKSON UNIVERSITY **7116**
THERMOCAPILLARY MIGRATION & INTERACTIONS OF BUBBLE & DROPS
 01/10/1990 – 02/20/1998 FY98: \$0 Total: \$1,378,490
Prin. Invest.: R S SUBRAMANIAN
Tech. Officer: LERC/M E HILL
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 3 1891 CLARKSON UNIVERSITY **7117**
ABSOLUTE AND CONVECTIVE INSTABILITY AND SPLITTING OF A LIQUID
 05/30/1996 – 05/31/2000 FY98: \$60,000 Total: \$196,000
Prin. Invest.: S P LIN
Tech. Officer: LERC/M E HILL
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 2471 CLARKSON UNIVERSITY **7118**
EXPERIMENTAL AND ANALYTICAL STUDIES OF CAPILLARY-PUMPED
LOOP HEAT PIPES
 12/22/1993 – 11/14/1998 FY98: \$0 Total: \$221,616
Prin. Invest.: N T OBOT
Tech. Officer: GSFC/J KU
CASE Category: 49 – ENGINEERING, OTHER

NAG 8 1266 CLARKSON UNIVERSITY **7119**
USE OF MICROGRAVITY TO CONTROL THE MICROSTRUCTURE OF EUTE-
CICES
 05/01/1996 – 04/30/2000 FY98: \$146,250 Total: \$348,750
Prin. Invest.: W R WILCOX, L L REGEL
Tech. Officer: MSFC/D R WOODARD, MSFC/R W ALLEN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1482 CLARKSON UNIVERSITY **7120**
R/S IMPROVED CRYSTAL QUALITY BY DETACHED SOLIDIFICATION IN
MICROGRAVITY
 02/12/1998 – 01/31/2002 FY98: \$63,333 Total: \$63,333
Prin. Invest.: L L REGEL
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NGT 51142 CLARKSON UNIVERSITY **7121**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/19/1993 – 01/15/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: S P LIN
Tech. Officer: HQ/R WHITE
CASE Category: 46 – MECHANICAL ENGR

NGT 51345 CLARKSON UNIVERSITY **7122**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/28/1994 – 06/30/1997 FY98: -\$390 Total: \$66,000
Prin. Invest.: D K AIDUN
Tech. Officer: HQ/G A LESANE
CASE Category: 49 – ENGINEERING, OTHER

NGT 51354 CLARKSON UNIVERSITY **7123**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 – 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: F M CARLSON
Tech. Officer: HQ/GA LESANE
CASE Category: 46 – MECHANICAL ENGR

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| NGT 51362 CLARKSON UNIVERSITY 7124 GRADUATE STUDENT RESEARCHERS PROGRAM 08/08/1994 - 07/31/1997 FY98: \$0 Total: \$66,000 Prin. Invest.: F M CARLSON Tech. Officer: HQ/GA LESANE CASE Category: 46 - MECHANICAL ENGR | NAG 2 1185 COLUMBIA UNIVERSITY 7132 EFFECTS OF SPACE FLIGHT-ASSOCIATED STIMULI ON DEVELOPMENT OF MURINE & MEDAKA SENSORY-MOTOR SYSTEMS 03/23/1998 - 09/01/1998 FY98: \$25,643 Total: \$25,643 Prin. Invest.: D J WOLGEMUTH Tech. Officer: ARC/C A MITCHELL CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) |
| NGT 1 52102 CLARKSON UNIVERSITY 7125 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP) 06/13/1995 - 06/30/1999 FY98: \$22,850 Total: \$76,001 Prin. Invest.: M GLAUSER, S D STOKES Tech. Officer: LARC/W L SELLERS, LARC/T B GATSKI CASE Category: 41 - AERONAUTICAL ENGR | NAG 5 618 COLUMBIA UNIVERSITY 7133 X-RAY ASTRONOMY 02/01/1983 - 06/30/1999 FY98: \$1,000 Total: \$8,454,163 Prin. Invest.: R K WICK, W H-M KU, M VARTANIAN Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS CASE Category: 13 - PHYSICS |
| NGT 3 52335 CLARKSON UNIVERSITY 7126 GRADUATE STUDENT RESEARCHERS PROGRAM 06/11/1997 - 08/31/1998 FY98: \$0 Total: \$22,000 Prin. Invest.: P PILLAY Tech. Officer: LERC/F J MONTEGANI CASE Category: 49 - ENGINEERING, OTHER | NAG 5 642 COLUMBIA UNIVERSITY 7134 HIGH EMISSION LINE SPECTROSCOPY 04/01/1987 - 03/31/1997 FY98: \$0 Total: \$2,698,863 Prin. Invest.: C M F RTIN Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS CASE Category: 13 - PHYSICS |
| NGT 4 72400 CLARKSON UNIVERSITY 7127 3-D HEAT TRANSFER EFFECTS ON THE PERFORMANCE OF HOT-FILM 06/30/1995 - 08/30/1999 FY98: \$35,579 Total: \$88,000 Prin. Invest.: M GLAUSER Tech. Officer: DFRG/E J COX, DFRG/S B BRITMAN CASE Category: 46 - MECHANICAL ENGR | NAG 5 1935 COLUMBIA UNIVERSITY 7135 SEYFERT 1.8 AND 1.9 GLAXIES (509) 04/07/1992 - 10/31/1997 FY98: \$0 Total: \$172,081 Prin. Invest.: J P HALPERN Tech. Officer: GSFC/R PETRE CASE Category: 11 - ASTRONOMY |
| NGT 8 52849 CLARKSON UNIVERSITY 7128 MICROGRAVITY EQUIPMENT VIBRATIONS: A SENSITIVITY AND CONTROL STUDY 07/21/1998 - 08/14/2000 FY98: \$22,000 Total: \$22,000 Prin. Invest.: G AHMADI Tech. Officer: MSFC/J DOWDY CASE Category: 46 - MECHANICAL ENGR | NAG 5 1948 COLUMBIA UNIVERSITY 7136 DEFORMATION IN ALASKA: (1) ANAL., OF GPS REOCCUPATION OF ALASKAN VLBI SITES 2) SUBDUCTION, ... 03/18/1992 - 09/30/1997 FY98: \$0 Total: \$259,450 Prin. Invest.: J BEAVAN Tech. Officer: GSFC/B G BILLS CASE Category: 32 - GEOLOGICAL SCIENCE |
| NGT 8 52853 CLARKSON UNIVERSITY 7129 COMPUTATIONAL MODELING OF FUEL SPRAY FORMATION IN ROCKET ENGINES 07/21/1998 - 08/13/2000 FY98: \$22,000 Total: \$22,000 Prin. Invest.: G AHMADI Tech. Officer: MSFC/J F DOWDY CASE Category: 46 - MECHANICAL ENGR | NAG 5 1949 COLUMBIA UNIVERSITY 7137 KINEMATICS OF THE NEW ZEALAND PLATE BOUNDARY: RELATIVE MOTION BY GPS ACROSS NETWORKS, ... 03/18/1992 - 05/31/1998 FY98: \$0 Total: \$177,193 Prin. Invest.: J BEAVAN Tech. Officer: GSFC/B G BILLS CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 2 965 COLUMBIA UNIVERSITY 7130 THE EFFECT OF SPACE FLIGHT ON RODENT OCULAR TISSUE S 02/21/1995 - 09/30/1996 FY98: -\$23 Total: \$21,196 Prin. Invest.: B V WORGUL Tech. Officer: ARC/W E HINDS, ARC/C M WINGET CASE Category: 56 - MEDICAL | NAG 5 1960 COLUMBIA UNIVERSITY 7138 FOUR-DIMENSIONAL OCEANIC AND ATMOSPHERIC DATA ASSIMILATION WITH THE TRMM DATA 04/03/1992 - 11/30/1996 FY98: \$0 Total: \$440,000 Prin. Invest.: K TAKANO Tech. Officer: GSFC/O W THIELE CASE Category: 3 - ATMOSPHERIC SCIENCE |
| NAG 2 987 COLUMBIA UNIVERSITY 7131 DEVELOPMENT OF THE FISH MEDAKA IN MICROGRAVITY 06/15/1995 - 06/30/1998 FY98: \$0 Total: \$603,697 Prin. Invest.: D J WOLGEMUTH, C R PHILLIPS Tech. Officer: ARC/C M WINGET, ARC/C J JANHNS CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) | NAG 5 2051 COLUMBIA UNIVERSITY 7139 MULTIWAVELENGTH OBSERVATIONS OF UNIDENTIFIED HIGH-ENERGY GAMMA-RAY SOURCES 07/28/1992 - 02/14/1997 FY98: -\$4,712 Total: \$145,700 Prin. Invest.: J P HALPERN Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE CASE Category: 11 - ASTRONOMY |

NAG 5 2235 COLUMBIA UNIVERSITY 7140
GAMMA-RAY EMISSION FROM GLOBULAR CLUSTERS
 04/08/1993 – 10/14/1997 FY98: \$0 Total: \$214,699
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 2524 COLUMBIA UNIVERSITY 7141
WARM ABSORBERS: THE MOMENT OF TRUTH & THE GEMINGA PULSAR
 02/24/1994 – 03/14/1998 FY98: \$0 Total: \$79,654
Prin. Invest.: J P HALPERN
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2556 COLUMBIA UNIVERSITY 7142
NEW STARBURST GALAXIES WITH EXTREME X-RAY LUMINOSITY TIES & THROUGH THE GAS DARKLY: AN UNOBSERVED.....
 03/10/1994 – 09/30/1998 FY98: \$0 Total: \$106,504
Prin. Invest.: D J HELFAND
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2569 COLUMBIA UNIVERSITY 7143
DISTANCE TO THE GEMINGA PULSAR
 04/12/1994 – 04/14/1997 FY98: \$0 Total: \$86,658
Prin. Invest.: J P HALPERN
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 2729 COLUMBIA UNIVERSITY 7144
SEARCH FOR HARD X-RAY EMISSION FROM AQUILA X-1; HIGH ENERGY EMISSION FROM THE GAMMA-RAY/RADIO
 09/27/1994 – 09/30/1997 FY98: \$84 Total: \$148,491
Prin. Invest.: M TAVANI, B A HARMON
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2730 COLUMBIA UNIVERSITY 7145
X-RAY EMISSION FROM THE BE-STAR/PULSAR SYSTEM PSR 1259-63
 09/20/1994 – 09/14/1997 FY98: \$0 Total: \$34,005
Prin. Invest.: TAVANI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2841 COLUMBIA UNIVERSITY 7146
NEUTRON STAR PHENOMENA
 12/15/1994 – 01/14/1998 FY98: \$0 Total: \$178,000
Prin. Invest.: M RUDERMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 2859 COLUMBIA UNIVERSITY 7147
TIDAL POWER, IRRADIATION-DRIVEN WINDS, AND THE EVOLUTION OF THE ECLIPSING MILLISECOND P
 01/09/1995 – 01/14/1998 FY98: \$0 Total: \$230,000
Prin. Invest.: J APPELGATE
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 2861 COLUMBIA UNIVERSITY 7148
THE GAMMA-RAY LUMINOSITY FUNCTION OF RADIO PULSARS
 01/06/1995 – 01/14/1998 FY98: \$0 Total: \$47,136
Prin. Invest.: D J HELFAND
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2916 COLUMBIA UNIVERSITY 7149
1)THE ORIGIN OF HIGH X-RAY LUMINOSITIES IN OPTICALLY PASSIVE GALAXIES;2) RESOLVING THE SOURCE ETC
 03/17/1995 – 09/30/1998 FY98: \$0 Total: \$36,078
Prin. Invest.: D HELFAND
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 2987 COLUMBIA UNIVERSITY 7150
SCALE-SPACE (WAVELET) ANALYSIS OF TOPOGRAPHY, AND ITS USE IN UNDERSTANDING THE EVOLUTION OF ETC.....
 06/30/1995 – 06/30/1999 FY98: \$64,291 Total: \$277,894
Prin. Invest.: J WEISSEL
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 2991 COLUMBIA UNIVERSITY 7151
EUVE SPECTROSCOPY OF THE ACCRETION REGION IN AM HERCULIS
 07/03/1995 – 07/14/1997 FY98: \$0 Total: \$18,539
Prin. Invest.: F B PAERELS
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 – ASTRONOMY

NAG 5 3014 COLUMBIA UNIVERSITY 7152
RE-OBSERVING THE FIRST HOURS OF SUPERNOVA 1987A
 07/18/1995 – 07/31/1997 FY98: \$0 Total: \$32,000
Prin. Invest.: A P CROTTS
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3091 COLUMBIA UNIVERSITY 7153
DARK MATTER IN UNIVERSE AND IN GALAXY
 10/05/1995 – 10/14/1998 FY98: \$70,000 Total: \$210,000
Prin. Invest.: M P KAMIONKOWSKI
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3092 COLUMBIA UNIVERSITY 7154
GAMMA-RAY SPECTROSCOPY OF NEARBY OB ASSOCIATIONS
 10/12/1995 – 10/14/1997 FY98: \$0 Total: \$28,996
Prin. Invest.: J R DWYER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3229 COLUMBIA UNIVERSITY 7155
THE NEW X-RAY/GAMMA-RAY PULSARS
 05/15/1996 – 06/14/1999 FY98: \$90,000 Total: \$270,000
Prin. Invest.: J P HALPERN
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3287 COLUMBIA UNIVERSITY 7156
HIGH SPATIAL RESOLUTION STUDIES OF BLASTWAVE INTER ACTIONS IN THE VELA SUPERNOVA
 07/01/1996 - 06/30/1997 FY98: \$0 Total: \$15,000
Prin. Invest.: W CRAIG
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 3288 COLUMBIA UNIVERSITY 7157
WHITE DWARF PULSARS
 07/02/1996 - 01/31/1998 FY98: \$0 Total: \$26,500
Prin. Invest.: J PATTERSON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3307 COLUMBIA UNIVERSITY 7158
1) MONITORING MRK 509: THE ORIGIN OF THE REPROCESS OR; 2) BROAD BAND X-RAY SPECTRUM OF NARROW.....
 07/24/1996 - 01/31/1998 FY98: \$0 Total: \$60,700
Prin. Invest.: J HALTON
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3311 COLUMBIA UNIVERSITY 7159
ECHO TOMOGRAPHY OF REPROCESSING SITES IN X-RAY BINARIES
 07/24/1996 - 01/31/1998 FY98: \$0 Total: \$5,000
Prin. Invest.: C HASWELL
Tech. Officer: GSFC/J SWANK
CASE Category: 13 - PHYSICS

NAG 5 3319 COLUMBIA UNIVERSITY 7160
COLUMBIA UNIVERSITY PARTICIPATION IN THE INFRARED SPACE OBSERVATORY (ISO) GUEST OBSERVER PROGRAM
 07/30/1996 - 08/14/1999 FY98: \$0 Total: \$77,400
Prin. Invest.: A P CROTTA
Tech. Officer: GSFC/WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3329 COLUMBIA UNIVERSITY 7161
THE X-RAY SPECTRUM OF WZ SAGITTAE
 08/12/1996 - 02/14/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: J PATTERSON
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3460 COLUMBIA UNIVERSITY 7162
XTE PROPOSAL (10095) HARD X-RAY EMISSION OF X-RAY BURSTERS
 10/15/1996 - 10/14/1997 FY98: \$0 Total: \$14,300
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3463 COLUMBIA UNIVERSITY 7163
INNOVATIVE RESEARCH PROGRAM - SUPERSHIELDS FOR GAMMA
 11/02/1996 - 09/30/1999 FY98: \$0 Total: \$388,763
Prin. Invest.: C J HAILEY
Tech. Officer: GSFC/D HOLLAND
CASE Category: 11 - ASTRONOMY

NAG 5 3482 COLUMBIA UNIVERSITY 7164
CHANCELLOR'S MODEL SCHOOL PROJECT
 11/22/1996 - 08/31/1998 FY98: \$247,138 Total: \$497,198
Prin. Invest.: G LOPEZ
Tech. Officer: GSFC/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3502 COLUMBIA UNIVERSITY 7165
SN 1987A: FORMATION OF A SUPERNOVA REMNANT
 12/11/1996 - 12/14/1998 FY98: \$68,000 Total: \$164,700
Prin. Invest.: A P CROTTS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3541 COLUMBIA UNIVERSITY 7166
SOFT X-RAY SPECTROSCOPY OF ACCRETION-POWERED SOURCES
 12/09/1996 - 04/30/1998 FY98: \$0 Total: \$162,000
Prin. Invest.: S M KAHN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3595 COLUMBIA UNIVERSITY 7167
MONITORING X-RAY EMISSION FROM X-RAY BURSTERS
 01/02/1997 - 12/31/1998 FY98: \$0 Total: \$8,400
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3621 COLUMBIA UNIVERSITY 7168
FE L-SHELL LINE EMISSION FROM SEYFERT GALAXIES
 03/07/1997 - 10/11/1998 FY98: \$19,791 Total: \$19,791
Prin. Invest.: S KAHN
Tech. Officer: GSFC/N WHITE
CASE Category: 13 - PHYSICS

NAG 5 3622 COLUMBIA UNIVERSITY 7169
A STUDY OF LONG-TERM VARIABILITY IN THE X-RAY EMISSION PROPERTIES OF AMHERCULIS
 03/07/1997 - 10/11/1998 FY98: \$0 Total: \$36,424
Prin. Invest.: S KAHN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3797 COLUMBIA UNIVERSITY 7170
PAIR PRODUCTION AND GAMMA-RAY EMISSION IN THE OUTER RAPIDLY SPINNING YOUNG PULSARS
 11/27/1996 - 11/30/1997 FY98: \$0 Total: \$15,000
Prin. Invest.: K CHEN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3798 COLUMBIA UNIVERSITY 7171
THE BRIGHT GAMMA-RAY TRANSIENT GRO J1838-0145, \$29 MULTIWAVELENGTH STUDIES OF X-RAY NOVAE, \$10,000.0
 11/27/1996 - 11/30/1997 FY98: \$0 Total: \$39,000
Prin. Invest.: M TAVANI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3799 COLUMBIA UNIVERSITY 7172
X-RAY TRANSIENTS IN STAR-FORMING REGIONS, \$17,000. EMISSIONS FROM X-RAY BURSTERS, \$7,500.00
 11/27/1996 – 11/30/1998 FY98: \$0 Total: \$24,500
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3838 COLUMBIA UNIVERSITY 7173
MULTIWAVELENGTH OBSERVATIONS OF THE GALACTIC SUPER 1915+105
 02/14/1997 – 08/31/1998 FY98: \$11,097 Total: \$21,097
Prin. Invest.: M TAVANI
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3843 COLUMBIA UNIVERSITY 7174
INTERPRETING BROAD DOUBLE-PEAKED EMISSION LINES IN
 02/20/1997 – 02/28/1998 FY98: \$0 Total: \$51,900
Prin. Invest.: K CHEN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3891 COLUMBIA UNIVERSITY 7175
LONG TERM HARD X-RAY MONITORING OF X-RAY BURSTERS
 05/27/1997 – 01/31/1999 FY98: \$0 Total: \$12,250
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3953 COLUMBIA UNIVERSITY 7176
MARKERS FOR ASSESSING VERTEBRATE DEVELOPMENT IN SP
 02/12/1997 – 12/31/1997 FY98: \$0 Total: \$141,615
Prin. Invest.: D WOGLEMUTH
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 4012 COLUMBIA UNIVERSITY 7177
STUDING ABSORPTION LINE FEATURE IN THE RELATIVISTIC GRS1915+105
 02/24/1997 – 02/28/1998 FY98: \$0 Total: \$7,000
Prin. Invest.: M TAVANI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 4013 COLUMBIA UNIVERSITY 7178
BLACK HOLE X-RAY NOVA OUTBURST WITH XTE AND HST
 02/24/1997 – 02/28/1998 FY98: \$0 Total: \$5,000
Prin. Invest.: C HASWELL
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4028 COLUMBIA UNIVERSITY 7179
MODELLING SOUTH PACIFIC OCEAN INTERACTIONS IN THE
 03/13/1997 – 02/28/1999 FY98: \$92,461 Total: \$206,203
Prin. Invest.: D M HOLLAND
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4052 COLUMBIA UNIVERSITY 7180
MODELING OF DISTRIBUTION AND INTERANNUAL TO INTER- DECADEAL VARIATION OF AEROSOLS
 02/26/1997 – 02/28/1999 FY98: \$117,107 Total: \$229,525
Prin. Invest.: I TEGEN
Tech. Officer: GSFC/D RIND
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4058 COLUMBIA UNIVERSITY 7181
IMPACTS OF INTERANNUAL VARIABILITY ON AGRO ECOSYSTEMS AND FISHERIES
 03/26/1997 – 12/31/1998 FY98: \$120,000 Total: \$240,000
Prin. Invest.: M CANE
Tech. Officer: GSFC/D RENEL
CASE Category: 11 – ASTRONOMY

NAG 5 4112 COLUMBIA UNIVERSITY 7182
VARIABILITY & SPECTRAL STUDIES OF LUMINOUS SEYFERT SEARCH FOR THE REFLECTION COMPONENT IN A QUASAR-R
 04/15/1997 – 04/14/1998 FY98: \$0 Total: \$27,142
Prin. Invest.: K LEIGHLY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4416 COLUMBIA UNIVERSITY 7183
KILOHERTZ QPOs IN ATOLL SOURCES
 05/01/1997 – 04/30/1999 FY98: \$0 Total: \$29,076
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4424 COLUMBIA UNIVERSITY 7184
LOCATING AND DETERMINING THE NATURE OF A PERSISTENT GROJ1814-12
 05/07/1997 – 04/30/1998 FY98: \$0 Total: \$5,000
Prin. Invest.: M TAVANI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4425 COLUMBIA UNIVERSITY 7185
MONITORING X-RAY EMISSION FROM X-RAY BURSTERS
 05/07/1997 – 04/30/1998 FY98: \$0 Total: \$8,832
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4558 COLUMBIA UNIVERSITY 7186
EXPERIMENTAL AND MODELING STUDIES OF MASSIF ANORTH
 05/30/1997 – 02/28/1999 FY98: \$30,000 Total: \$60,000
Prin. Invest.: D LONGHI
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4633 COLUMBIA UNIVERSITY 7187
HARD X-RAY EMISSION OF X-RAY BURSTERS
 05/21/1997 – 05/31/1999 FY98: \$0 Total: \$15,190
Prin. Invest.: P KAARET
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

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|-------------------------------------------------------------------------------------------------------------|---------------------|------------------|
| NAG 5 4634 | COLUMBIA UNIVERSITY | 7188 |
| X-RAY EMISSION FROM THE SOFT X-RAY TRANSIENT AQUIL | | |
| 05/30/1997 - 05/14/1998 | FY98: \$0 | Total: \$10,000 |
| <i>Prin. Invest.:</i> M TAVANI | | |
| <i>Tech. Officer:</i> GSFC/N WHITE | | |
| <i>CASE Category:</i> 11 - ASTRONOMY | | |
| NAG 5 4649 | COLUMBIA UNIVERSITY | 7189 |
| EARLY DIFFERENTIATION OF THE MOON: EXPERIMENTAL AND | | |
| 06/11/1997 - 05/31/1999 | FY98: \$80,000 | Total: \$200,000 |
| <i>Prin. Invest.:</i> D LONGHI | | |
| <i>Tech. Officer:</i> GSFC/D NAVA | | |
| <i>CASE Category:</i> 11 - ASTRONOMY | | |
| NAG 5 4734 | COLUMBIA UNIVERSITY | 7190 |
| WHITE DWARF PULSARS | | |
| 06/04/1997 - 06/14/1998 | FY98: \$0 | Total: \$20,711 |
| <i>Prin. Invest.:</i> J PATTERSON | | |
| <i>Tech. Officer:</i> GSFC/J SWANK | | |
| <i>CASE Category:</i> 11 - ASTRONOMY | | |
| NAG 5 4759 | COLUMBIA UNIVERSITY | 7191 |
| OBSERVATIONS OF THE NEUTRON STAR RXJ0002.9+6246 | | |
| 06/17/1997 - 05/31/1998 | FY98: \$0 | Total: \$7,600 |
| <i>Prin. Invest.:</i> C J HAILEY | | |
| <i>Tech. Officer:</i> GSFC/R PETRE | | |
| <i>CASE Category:</i> 11 - ASTRONOMY | | |
| NAG 5 4789 | COLUMBIA UNIVERSITY | 7192 |
| SEARCH FOR PULSATIONS FROM A NEARBY MILLISECOND PULSAR: MIRROR FOR A HIDDEN SEYFERT 1 NUCLEUS | | |
| 06/17/1997 - 06/30/1998 | FY98: \$0 | Total: \$14,000 |
| <i>Prin. Invest.:</i> J HALPERN | | |
| <i>Tech. Officer:</i> GSFC/R PETRE | | |
| <i>CASE Category:</i> 11 - ASTRONOMY | | |
| NAG 5 4827 | COLUMBIA UNIVERSITY | 7193 |
| X-RAY EMISSION FROM THE UNIDENTIFIED GAMMA-RAY TRA | | |
| 06/20/1997 - 06/30/1998 | FY98: \$0 | Total: \$15,100 |
| <i>Prin. Invest.:</i> M TAVANI | | |
| <i>Tech. Officer:</i> GSFC/N WHITE | | |
| <i>CASE Category:</i> 11 - ASTRONOMY | | |
| NAG 5 4971 | COLUMBIA UNIVERSITY | 7194 |
| PHOTOCHEMISTRY OF METHANE IN MODEL ATMOSPHERES OF | | |
| 06/23/1997 - 06/14/2000 | FY98: \$28,125 | Total: \$103,125 |
| <i>Prin. Invest.:</i> D BERSOHN | | |
| <i>Tech. Officer:</i> GSFC/R BEEBEE | | |
| <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | | |
| NAG 5 5108 | COLUMBIA UNIVERSITY | 7195 |
| LXGRI: A LIQUID XENON GAMMA-RAY IMAGING TELESCOPE FOR HIGH ENERGY ASTROPHYSICS | | |
| 02/11/1997 - 11/30/1998 | FY98: \$390,000 | Total: \$871,000 |
| <i>Prin. Invest.:</i> E APRILE | | |
| <i>Tech. Officer:</i> GSFC/H C NEEDLEMAN, GSFC/B A MERRITT | | |
| <i>CASE Category:</i> 13 - PHYSICS | | |
| NAG 5 5119 | COLUMBIA UNIVERSITY | 7196 |
| REFLIGHT OF THE GAMMA-RAY ARC-MINUTE TELESCOPE IMAGING SYSTEM (GRATIS) PAYLOAD | | |
| 04/09/1997 - 11/30/1998 | FY98: \$0 | Total: \$46,969 |
| <i>Prin. Invest.:</i> C T ALLEY | | |
| <i>Tech. Officer:</i> GSFC/H NEEDLEMAN, GSFC/B A MERRITT | | |
| <i>CASE Category:</i> 13 - PHYSICS | | |
| NAG 5 5123 | COLUMBIA UNIVERSITY | 7197 |
| X-RAY SPECTROSCOPIC LABORATORY EXPERIMENTS IN SUPPORT OF THE NASA X-RAY ASTRONOMY PROGRAM | | |
| 02/20/1997 - 01/31/1999 | FY98: \$192,900 | Total: \$369,700 |
| <i>Prin. Invest.:</i> S N KAHN | | |
| <i>Tech. Officer:</i> GSFC/B J FLOWERS | | |
| <i>CASE Category:</i> 13 - PHYSICS | | |
| NAG 5 5129 | COLUMBIA UNIVERSITY | 7198 |
| HIGH ENERGY FOCUSING TELESCOPE FUNDING FOR THE FIRST YEAR OF THE ENERGY | | |
| 07/01/1997 - 12/11/1998 | FY98: \$237,300 | Total: \$505,300 |
| <i>Prin. Invest.:</i> C H AILEY | | |
| <i>Tech. Officer:</i> GSFC/H NEEDLEMAN | | |
| <i>CASE Category:</i> 13 - PHYSICS | | |
| NAG 5 5196 | COLUMBIA UNIVERSITY | 7199 |
| RAIN INDUCED AIR-WATER GAS EXCHANGE: MECHANISMS AND GLOBAL EFFECTS | | |
| 05/08/1998 - 04/30/1999 | FY98: \$5,000 | Total: \$5,000 |
| <i>Prin. Invest.:</i> P SCHLOSSER | | |
| <i>Tech. Officer:</i> GSFC/F L BLIVEN | | |
| <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | | |
| NAG 5 6035 | COLUMBIA UNIVERSITY | 7200 |
| SURFING THE HIGH DENSITY UNIVERSE | | |
| 10/03/1997 - 09/30/1999 | FY98: \$216,000 | Total: \$216,000 |
| <i>Prin. Invest.:</i> D HELFANDO | | |
| <i>Tech. Officer:</i> GSFC/D K WEST | | |
| <i>CASE Category:</i> 11 - ASTRONOMY | | |
| NAG 5 6232 | COLUMBIA UNIVERSITY | 7201 |
| X-RAY EMISSION FROM THE UNIDENTIFIED GAMMA-RAY TRA J1838-0415; X-RAY LOCALIZATION OF GAMMA-RAY TRANS | | |
| 08/19/1997 - 08/11/1998 | FY98: \$0 | Total: \$27,200 |
| <i>Prin. Invest.:</i> M TAVANI | | |
| <i>Tech. Officer:</i> GSFC/N WHITE | | |
| <i>CASE Category:</i> 11 - ASTRONOMY | | |
| NAG 5 6240 | COLUMBIA UNIVERSITY | 7202 |
| DETERMINATION OF RADIATIVE EFFECTS OF CONTRAILS AND | | |
| 09/15/1997 - 08/31/1999 | FY98: \$54,000 | Total: \$106,600 |
| <i>Prin. Invest.:</i> A MAJKE | | |
| <i>Tech. Officer:</i> GSFC/R W STEWART | | |
| <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | | |
| NAG 5 6294 | COLUMBIA UNIVERSITY | 7203 |
| DEVELOP A UNIQUE SHARED RESEARCH FACILITY IN WHICH FOCUS ON THE CHANGING ATMOSPHERE | | |
| 09/15/1997 - 08/14/1999 | FY98: \$75,000 | Total: \$150,000 |
| <i>Prin. Invest.:</i> W BRIDGEMAN | | |
| <i>Tech. Officer:</i> GSFC/M KHAZENIE | | |
| <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | | |

NAG 5 6315 COLUMBIA UNIVERSITY 7204
MODELING STUDIES OF THE EFFECTS OF WINDS AND HEAT TROPICAL OCEAN
 09/19/1997 – 09/30/1999 FY98: \$152,000 Total: \$291,359
Prin. Invest.: R SEAGER
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6321 COLUMBIA UNIVERSITY 7205
THE BIO-ATMOSPHERIC CYCLES OF NITROGEN AND CARBON: POLLUTION AND TERRESTRIAL ECOSYSTEMS
 09/09/1997 – 07/31/1999 FY98: \$41,506 Total: \$81,808
Prin. Invest.: E MATTHEWS
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6331 COLUMBIA UNIVERSITY 7206
IMPROVED SEA ICE/UPPER OCEAN MODELING IN THE GISS GCM FOR INVESTIGATING CLIMATE CHANGE
 10/02/1997 – 09/30/1998 FY98: \$68,287 Total: \$68,287
Prin. Invest.: D G MARTINSON
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6372 COLUMBIA UNIVERSITY 7207
THE THEORETICAL CALCULATION AND VALIDATION OF THE ABSORPTION
 09/25/1997 – 07/31/1998 FY98: \$0 Total: \$59,900
Prin. Invest.: D MA
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6401 COLUMBIA UNIVERSITY 7208
STUDYING X-RAY BINARIES WITH HIGH FREQUENCY QUASI-PERIODIC OSCILLATIONS (LTSA)
 10/10/1997 – 09/30/1998 FY98: \$0 Total: \$0
Prin. Invest.: P KAARET
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6450 COLUMBIA UNIVERSITY 7209
PRODUCTION AND ANALYSIS OF GLOBAL WAVE AND PHOTOSYNTHETICALLY ACTIVE SURFACE IRRADIANCE FIELDS
 10/31/1997 – 09/30/1999 FY98: \$337,933 Total: \$337,933
Prin. Invest.: J BISHOP
Tech. Officer: GSFC/M WEI
CASE Category: 33 – OCEANOGRAPHY

NAG 5 6649 COLUMBIA UNIVERSITY 7210
A DEDICATED ENVIRONMENTAL REMOTE SENSING FACILITY FOR THE COLUMBIA EARTH INSTITUTE
 12/04/1997 – 11/30/1998 FY98: \$204,564 Total: \$204,564
Prin. Invest.: J WEISSEL
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6676 COLUMBIA UNIVERSITY 7211
COLUMBIA UNIVERSITY – UNDERGRADUATE INTERNSHIPS IN EARTH SYSTEM RESEARCH AT BIOSPHERE 2 CENTER
 11/28/1997 – 10/31/1997 FY98: \$0 Total: \$0
Prin. Invest.: W BROECKER
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6866 COLUMBIA UNIVERSITY 7212
LOCATING THE PERIODIC TRANSIENT GRO J1849-03; GAMMA A-RAY LUMINOUS SUPERNOVAE REMNANTS
 02/18/1998 – 05/31/1998 FY98: \$0 Total: \$0
Prin. Invest.: P E KAARET
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 6876 COLUMBIA UNIVERSITY 7213
INFLUENCE OF ARCTIC SEA ICE ON NATURAL AND ANTHROPOGENICALLY-INDUCED CLIMATE VARIABILITY
 01/30/1998 – 03/31/1999 FY98: \$43,400 Total: \$43,400
Prin. Invest.: D G MARTINSON
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6877 COLUMBIA UNIVERSITY 7214
MONSOONS, TIDAL MIXING AND PRODUCTIVITY IN THE BANDARA SEA, INDONESIA
 02/10/1998 – 12/31/1998 FY98: \$214,948 Total: \$214,948
Prin. Invest.: J MARRA
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6920 COLUMBIA UNIVERSITY 7215
RXTE PROPOSAL – INVESTIGATING THE EXTRAORDINARY X-RAY VARIABILITY OF THE INFRARED QUASARS
 01/28/1998 – 01/31/1999 FY98: \$3,870 Total: \$3,870
Prin. Invest.: K LEIGHLY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 6921 COLUMBIA UNIVERSITY 7216
RXTE PROPOSAL – SEARCH FOR OBSCURED NUCLEUS IN A LUMINOUS IRAS GALAXY NGC 6240
 01/28/1998 – 01/31/1999 FY98: \$5,804 Total: \$5,804
Prin. Invest.: K LEIGHLY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 6948 COLUMBIA UNIVERSITY 7217
MTPE: GLOBAL OCEAN-ATMOSPHERE INTERACTIONS FORCED BY TIDAL MIXING OF SST
 02/24/1998 – 06/30/1999 FY98: \$127,651 Total: \$127,651
Prin. Invest.: A L FIELD
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6959 COLUMBIA UNIVERSITY 7218
RXTE PROPOSAL – X-RAY OBSERVATIONS OF PKS 0558-504. A TEST OF MODELS FOR NARROW-LINE SEYFERT 1 G
 02/06/1998 – 01/31/1999 FY98: \$23,428 Total: \$23,428
Prin. Invest.: K LEIGHLY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 7044 COLUMBIA UNIVERSITY 7219
ASSESSING CURRENT AND POTENTIAL USE OF CLIMATE FOR ECOSTATS FOR COMMUNAL FARM MANAGEMENT IN ZIMBABWE
 03/05/1998 – 02/28/1999 FY98: \$29,976 Total: \$29,976
Prin. Invest.: M A CANE
Tech. Officer: GSFC/D RIND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7138 COLUMBIA UNIVERSITY **7220**
MIDDLEWORLD TRANSPORT WITHIN THREE-DIMENSIONAL MODES:
CHARACTERIZATION & SENSITIVITIES TO MODEL F
 05/06/1998 - 03/31/1999 FY98: \$36,500 Total: \$36,500
Prin. Invest.: T HALL
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7259 COLUMBIA UNIVERSITY **7221**
XTE PROPOSAL - RXTE STUDY OF A MINI-OUTBURST FROM THE SOFT
X-RAYTRANSIENT AQL X-1
 04/14/1998 - 04/14/1999 FY98: \$8,000 Total: \$8,000
Prin. Invest.: M TAVANI
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7261 COLUMBIA UNIVERSITY **7222**
ASCA PROPOSAL - SPECTROSCOPIC OBSERVATIONS OF STEEP SPEC-
TRUM NARROWLINE SEYFERT A GALAXIES
 04/15/1998 - 06/30/1999 FY98: \$15,100 Total: \$15,100
Prin. Invest.: K M LEIGHLY
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 7673 COLUMBIA UNIVERSITY **7223**
CORE ANGULAR MOMENTUM AND THE IERS COORDINATING CENTER/
SUB-CENTERSACTIVITY FOR MONITORING GLO
 09/03/1998 - 08/31/1999 FY98: \$20,000 Total: \$20,000
Prin. Invest.: X SONG
Tech. Officer: GSFC/B F CHAO
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NAG 5 7687 COLUMBIA UNIVERSITY **7224**
SURFACE SOLAR RADIATION SOLAR BASE
 09/17/1998 - 08/31/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: G KUKLA
Tech. Officer: GSFC/M I MISHCHENKO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7688 COLUMBIA UNIVERSITY **7225**
GLOBAL CHANGE RESEARCH INFORMATION OFFICE
 09/11/1998 - 09/30/1998 FY98: \$107,982 Total: \$107,982
Prin. Invest.: R MILLER
Tech. Officer: GSFC/D R KAHLE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7690 COLUMBIA UNIVERSITY **7226**
US GLOBAL CHANGE RESEARCH INFORMATION OFFICE (GCRI O)
 09/14/1998 - 09/30/1999 FY98: \$500,000 Total: \$500,000
Prin. Invest.: R B MILLER
Tech. Officer: GSFC/D R KAHLE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 916 COLUMBIA UNIVERSITY **7227**
MODELING STUDIES
 07/01/1986 - 09/30/1997 FY98: \$0 Total: \$1,169,082
Prin. Invest.: M A CANE
Tech. Officer: HQ/G S LAGERLOEF, HQ/W S WILSON
CASE Category: 33 - OCEANOGRAPHY

NAGW 2189 COLUMBIA UNIVERSITY **7228**
INVESTIGATIONS OF GLOBAL SHORT WAVE & PHOTOSYNTHETICALLY
ACTIVE SURFACE
 07/25/1990 - 03/31/1998 FY98: \$0 Total: \$527,343
Prin. Invest.: J F BISHOP, R N SAMBROTTO
Tech. Officer: HQ/M R LEWIS, HQ/W S WILSON
CASE Category: 33 - OCEANOGRAPHY

NAGW 2479 COLUMBIA UNIVERSITY **7229**
AGES AND ABUNDANCES OF BULGE POPULATIONS
 05/07/1991 - 04/30/1997 FY98: \$0 Total: \$329,400
Prin. Invest.: R M RICH
Tech. Officer: HQ/G S KUTTER, HQ/G R RIEGLER
CASE Category: 11 - ASTRONOMY

NAGW 2668 COLUMBIA UNIVERSITY **7230**
A PRECALCULUS/CALCULUS MODEL PROJECT TO INCREASE THE POOL
OF AFRICAN HISPAN
 09/17/1991 - 04/30/1997 FY98: \$0 Total: \$415,300
Prin. Invest.: G LOPEZ
Tech. Officer: J L Y FREEMAN, HQ/B L WHITE
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAGW 3362 COLUMBIA UNIVERSITY **7231**
SEA ICE ON THE SOUTHERN OCEAN
 01/29/1993 - 04/28/1997 FY98: \$0 Total: \$327,344
Prin. Invest.: S H JACOBS
Tech. Officer: HQ/R H THOMAS, HQ/R A SCHIFFER
CASE Category: 33 - OCEANOGRAPHY

NAGW 3539 COLUMBIA UNIVERSITY **7232**
DIRECT OBSERVATION OF WAVE INDUCED CHAOS
 04/27/1993 - 07/31/1997 FY98: \$0 Total: \$221,299
Prin. Invest.: M E MAUEL
Tech. Officer: HQ/E C WHIPPLE, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4219 COLUMBIA UNIVERSITY **7233**
THE CHANCELLOR'S MODEL SCHOOL PROJECT
 11/28/1994 - 04/31/1997 FY98: -\$514 Total: \$454,808
Prin. Invest.: G LOPEZ
Tech. Officer: HQ/B L WHITE
CASE Category: 76 - SOCIOLOGY

NAGW 4462 COLUMBIA UNIVERSITY **7234**
MARKERS FOR ASSESSING VERTEBRATE DEVELOPMENT IN SPACE
 05/04/1995 - 12/31/1997 FY98: \$0 Total: \$264,813
Prin. Invest.: W J WOLGEMUTH
Tech. Officer: HQ/T K SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4589 COLUMBIA UNIVERSITY **7235**
IMPROVED SEA ICE/UPPER OCEAN MODELING IN THE GISS GCM FOR
INVESTIGATING CLIMATE CHANGE
 06/30/1995 - 04/31/1998 FY98: \$0 Total: \$203,761
Prin. Invest.: D J MARTINSON, R RIND, C PARKINSON
Tech. Officer: HQ/R H THOMAS, HQ/M BALTUCK
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4693 COLUMBIA UNIVERSITY **7236**
THEORETICAL CALCULATION AND VALIDATION OF THE WATER VAPOR CONTINUUM ABSORPTION
 08/11/1995 – 07/31/1998 FY98: \$0 Total: \$105,000
Prin. Invest.: Q MA
Tech. Officer: HQ/G ASRAR
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAGW 4734 COLUMBIA UNIVERSITY **7237**
A PROGRAM IN BROAD BANDWIDTH IMAGING GAMMA-RAY ASTRONOMY
 09/08/1995 – 06/30/1998 FY98: \$0 Total: \$255,668
Prin. Invest.: C HAILEY
Tech. Officer: HQ/L J KALUZIENSKI
CASE Category: 11 – ASTRONOMY

NAGW 4818 COLUMBIA UNIVERSITY **7238**
SUPERSHIELDS FOR GAMMA-RAY ASTRONOMY
 10/19/1995 – 09/30/1998 FY98: \$0 Total: \$161,237
Prin. Invest.: C J HAILEY
Tech. Officer: HQ/DA HOLLAND, HQ/J H BREDEKAMP
CASE Category: 11 – ASTRONOMY

NAGW 5189 COLUMBIA UNIVERSITY **7239**
PARTICIPATION IN THE ARLINDO CRUISE IN THE INDOONESIAN SEAS
 09/19/1996 – 06/30/1997 FY98: \$0 Total: \$14,918
Prin. Invest.: D MARRA
Tech. Officer: HQ/N MAYNARD, HQ/R C HARRISS
CASE Category: 33 – OCEANOGRAPHY

NAGW 5216 COLUMBIA UNIVERSITY **7240**
GLOBAL OCEAN-ATMOSPHERE INTERACTIONS FORCED BY TIDAL MIXING OF SST
 11/18/1996 – 06/30/1998 FY98: \$0 Total: \$116,990
Prin. Invest.: A L FIELD
Tech. Officer: HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAS 5 97164 COLUMBIA UNIVERSITY **7241**
ACRIM SCIENCE TEAM
 04/21/1997 – 04/20/2002 FY98: \$303,000 Total: \$537,000
Prin. Invest.: R C WILSON
Tech. Officer: GSFC/N GRIFFIN
CASE Category: 32 – GEOLOGICAL SCIENCE

NAS 5 98035 COLUMBIA UNIVERSITY **7242**
PHASE A CONCEPT STUDY FOR (BOLT) THE BROADBAND OBSERVATORY FOR THE LOCATION OF TRANSIENTS
 12/29/1997 – 09/21/1998 FY98: \$163,000 Total: \$163,000
Prin. Invest.: C J HAILEY
Tech. Officer: GSFC/S NELSON
CASE Category: 13 – PHYSICS

NAS 5 98037 COLUMBIA UNIVERSITY **7243**
CONSTELLATION X-RAY MISSION
 06/22/1998 – 12/31/1998 FY98: \$150,000 Total: \$150,000
Prin. Invest.: S M KAHN
Tech. Officer: GSFC/J GRADY
CASE Category: 41 – AERONAUTICAL ENGR

NAS 5 98162 COLUMBIA UNIVERSITY **7244**
EOSDIS SEDAC
 07/01/1998 – 06/30/2003 FY98: \$1,592,914 Total: \$1,592,914
Prin. Invest.: R S CHEN
Tech. Officer: GSFC/M REPH
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 5 34 COLUMBIA UNIVERSITY **7245**
MODELING OF OCEAN CIRCULATION AND ATMOSPHERIC CHEMICAL SYSTEMS
 11/15/1985 – 11/30/1998 FY98: \$400,000 Total: \$7,187,069
Prin. Invest.: C K CHU
Tech. Officer: GSFC/R STOTHERS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 5 44 COLUMBIA UNIVERSITY **7246**
MODELLING OF ATMOSPHERIC CIRCULATION AND CHEMISTRY
 09/13/1991 – 02/28/1999 FY98: \$0 Total: \$2,492,431
Prin. Invest.: L POLVANI
Tech. Officer: GSFC/D PETEET
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 5 61 COLUMBIA UNIVERSITY **7247**
INTERDISCIPLINARY CLIMATE APPLICATIONS STUDIES
 03/14/1994 – 03/31/1998 FY98: \$0 Total: \$1,533,481
Prin. Invest.: C E ROSENWEIG
Tech. Officer: GSFC/L D TRAVIS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 5 72 COLUMBIA UNIVERSITY **7248**
RAPID PALEOCLIMATIC CHANGE
 06/28/1994 – 06/30/1997 FY98: \$0 Total: \$54,112
Prin. Invest.: G J KUKLA
Tech. Officer: GSFC/B A CARLSON
CASE Category: 32 – GEOLOGICAL SCIENCE

NCC 5 82 COLUMBIA UNIVERSITY **7249**
INTERDISCIPLINARY GLOBAL CHANGE RESEARCH
 12/01/1994 – 03/31/1999 FY98: \$651,239 Total: \$4,795,050
Prin. Invest.: L DRUYAN
Tech. Officer: GSFC/A LACIS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 5 177 COLUMBIA UNIVERSITY **7250**
INTERDISCIPLINARY RESEARCH ON CLIMATE VARIABILITY AND THE IMPACTS ASSOCIATED WITH REGIONAL
 01/08/1997 – 01/14/1998 FY98: \$300,000 Total: \$950,000
Prin. Invest.: M A CHANDLER
Tech. Officer: GSFC/D H RIND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 5 218 COLUMBIA UNIVERSITY **7251**
SEASONAL-TO-INTERANNUAL PREDICTION PROJECT
 07/21/1997 – 06/30/1999 FY98: \$58,977 Total: \$115,646
Prin. Invest.: M STIEGLITZ
Tech. Officer: GSFC/R KOSTER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

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| NCC 5 225 COLUMBIA UNIVERSITY 7252 THE EFFECTS OF RAINFALL ON SEASONAL TO INTERANNUAL TROPICAL OCEANS AND COUPLED CLIMATE PREDICTABILITY 08/13/1997 – 08/14/1999 FY98: \$41,950 Total: \$73,930 <i>Prin. Invest.:</i> D CHEN <i>Tech. Officer:</i> GSFC/A J BUSALACCHI CASE Category: 33 – OCEANOGRAPHY | NGT 30278 COLUMBIA UNIVERSITY 7260 GLOBAL CHANGE FELLOWSHIP PROGRAM AWARD 10/02/1994 – 01/31/1998 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> P H FROELICH <i>Tech. Officer:</i> H J A C JANETOS, HQ/G ASRAR CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NCC 5 270 COLUMBIA UNIVERSITY 7253 INTERDISCIPLINARY GLOBAL CHANGE RESEARCH 02/17/1998 – 12/31/1998 FY98: \$1,304,890 Total: \$1,304,890 <i>Prin. Invest.:</i> L M DRUYAN <i>Tech. Officer:</i> GSFC/A LACIS CASE Category: 31 – ATMOSPHERIC SCIENCE | NGT 30310 COLUMBIA UNIVERSITY 7261 GLOBAL CHANGE FELLOWSHIP PROGRAM AWARD 07/22/1995 – 08/31/1998 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> J E HANSEN <i>Tech. Officer:</i> H J A C JANETOS, HQ/G ASRAR CASE Category: 31 – ATMOSPHERIC SCIENCE |
| NCC 5 271 COLUMBIA UNIVERSITY 7254 MODELING OF OCEAN CIRCULATION AND ATMOSPHERIC CHEMICAL SYSTEMS 02/19/1998 – 11/30/1998 FY98: \$1,062,826 Total: \$1,062,826 <i>Prin. Invest.:</i> C K CHU <i>Tech. Officer:</i> GSFC/R B STOTHERS CASE Category: 31 – ATMOSPHERIC SCIENCE | NGT 30337 COLUMBIA UNIVERSITY 7262 GLOBAL CHANGE FELLOWSHIP PROGRAM 08/11/1995 – 12/31/1997 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> T TAKAHASHI <i>Tech. Officer:</i> H J A C JANETOS, HQ/G ASRAR CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NCC 5 278 COLUMBIA UNIVERSITY 7255 MODELLING OF ATMOSPHERIC CIRCULATION AND CHEMISTRY –GSFC CONTROL NO.5–3357 05/28/1998 – 02/28/1999 FY98: \$130,000 Total: \$130,000 <i>Prin. Invest.:</i> L POLVANI <i>Tech. Officer:</i> GSFC/R STOTHERS CASE Category: 31 – ATMOSPHERIC SCIENCE | NGT 50777 COLUMBIA UNIVERSITY 7263 GRADUATE STUDENT RESEARCHERS PROGRAM 06/10/1991 – 12/11/1996 FY98: –\$1,983 Total: \$64,017 <i>Prin. Invest.:</i> C MARTIN <i>Tech. Officer:</i> HQ F C OWENS CASE Category: 11 – ASTRONOMY |
| NCC 5 328 COLUMBIA UNIVERSITY 7256 INTERDISCIPLINARY RESEARCH ON CLIMATE VARIABILITY AND THE IMPACTS ASSOCIATED WITH REGIONAL CLIMATE CHANGE 06/05/1998 – 01/14/1999 FY98: \$938,841 Total: \$938,841 <i>Prin. Invest.:</i> M A CHANDLER <i>Tech. Officer:</i> GSFC/D RIND CASE Category: 31 – ATMOSPHERIC SCIENCE | NGT 50792 COLUMBIA UNIVERSITY 7264 GRADUATE STUDENT RESEARCHERS PROGRAM 06/28/1991 – 05/31/1997 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> C MARTIN <i>Tech. Officer:</i> HQ F C OWENS CASE Category: 13 – PHYSICS |
| NGT 30185 COLUMBIA UNIVERSITY 7257 GLOBAL CHANGE FELLOWSHIP PROGRAM 08/19/1993 – 08/31/1997 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> R G FAIRBANKS <i>Tech. Officer:</i> HQ/G ASRAR, HQ/D M BUTLER CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NGT 5 44 COLUMBIA UNIVERSITY 7265 RADIATIVE LINKS TO POLAR DYNAMICAL PROCESSES 06/23/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> A D HILGENIO <i>Tech. Officer:</i> GSFC/M S BURRELL CASE Category: 31 – ATMOSPHERIC SCIENCE |
| NGT 30186 COLUMBIA UNIVERSITY 7258 GLOBAL CHANGE FELLOWSHIP PROGRAM 08/23/1993 – 02/28/1997 FY98: –\$66 Total: \$65,934 <i>Prin. Invest.:</i> G BOND <i>Tech. Officer:</i> HQ/G ASRAR, HQ/D M BUTLER CASE Category: 33 – OCEANOGRAPHY | NGT 5 30016 COLUMBIA UNIVERSITY 7266 INTERANNUAL SST VARIABILITY OF THE TROPICAL WESTER FROM CORAL SURFACE PROXY RECORDS FOR THE LAST 1000 YEARS 10/23/1996 – 08/31/1999 FY98: \$16,600 Total: \$60,600 <i>Prin. Invest.:</i> B P SCHLOSSER <i>Tech. Officer:</i> GSFC/G ASRAR CASE Category: 33 – OCEANOGRAPHY |
| NGT 30277 COLUMBIA UNIVERSITY 7259 GLOBAL CHANGE FELLOWSHIP AWARD 10/02/1994 – 08/31/1998 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> W S BROECKER <i>Tech. Officer:</i> HQ/J S THEON, HQ/G ASRAR CASE Category: 33 – OCEANOGRAPHY | NGT 5 30048 COLUMBIA UNIVERSITY 7267 THIRD YEAR FUNDING: "RETRIEVAL OF TROPOSPHERIC AND SPACE BORNE POLARIZATION MEASUREMENTS" –ST 09/06/1997 – 08/31/1998 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> J HANSEN <i>Tech. Officer:</i> GSFC/G ASRAR CASE Category: 91 – MULTIDISCIPL, OTHER |

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| NGT 5 30079 COLUMBIA UNIVERSITY 7268 THIRD YEAR FUNDING: AN INVESTIGATION OF THE PROCE THE PCO2 OF THE PACIFIC SECTOR OF THE SOUTHERN OC 09/11/1997 - 02/28/1999 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> T TAKAHASHI <i>Tech. Officer:</i> GSFC/G ASRAR CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NAG 1 1184 CORNELL UNIVERSITY 7276 CRACK GROWTH PREDICTION METHODOLOGY FOR MULTI-SITE DAMAGE 09/27/1990 - 09/30/1998 FY98: \$113,817 Total: \$946,276 <i>Prin. Invest.:</i> A R INGRAFFEA, D V SWENSON <i>Tech. Officer:</i> LARC/J C NEWMAN, LARC/C E HARRIS CASE Category: 46 - MECHANICAL ENGR |
| NGT 5 30106 COLUMBIA UNIVERSITY 7269 RAIN INDUCED AIR-WATER GAS EXCHANGE: MECHANISMS AN D GLOBAL EFFECTS 10/24/1997 - 08/31/1999 FY98: \$44,000 Total: \$44,000 <i>Prin. Invest.:</i> D SCHLOSSER <i>Tech. Officer:</i> GSFC/G ASRAR CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NAG 1 2013 CORNELL UNIVERSITY 7277 CRACK TURNING AND ARREST MECHANISMS FOR INTEGRAL STRUC-TURES 03/03/1998 - 09/30/1998 FY98: \$38,399 Total: \$38,399 <i>Prin. Invest.:</i> R PETTIT <i>Tech. Officer:</i> LARC/P B BOGERT, LARC/J H STARNES, JR. CASE Category: 46 - MECHANICAL ENGR |
| NGT 5 30123 COLUMBIA UNIVERSITY 7270 AN INTERMEDIATE-LEVEL MODEL FOR THE TROPICAL ATMOS 09/30/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> M CANE <i>Tech. Officer:</i> GSFC/G ASRAR CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NAG 1 2069 CORNELL UNIVERSITY 7278 BASIC RESEARCH IN CRACK GROWTH PREDICTION METHODOLOGIES 05/20/1998 - 09/30/1998 FY98: \$60,000 Total: \$60,000 <i>Prin. Invest.:</i> A R INGRAFFEA, P A WAWRZYNEK <i>Tech. Officer:</i> LARC/J C NEWMAN, JR., LARC/I S RAJU CASE Category: 46 - MECHANICAL ENGR |
| NGT 5 30167 COLUMBIA UNIVERSITY 7271 VARIABILITY OF BIOGEOCHEMICAL REGIMES IN THE ROSS SEA: AN ANALYSIS USINGHIGH RESOLUTION SEA SURFACE 09/02/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> T TAKAHASHI <i>Tech. Officer:</i> GSFC/M Y WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 2 893 CORNELL UNIVERSITY 7279 FORMAL SUPPORT FOR HIGH ASSURANCE SYSTEMS 04/06/1994 - 03/31/1999 FY98: \$0 Total: \$632,751 <i>Prin. Invest.:</i> F B SCHNEIDER <i>Tech. Officer:</i> ARC/S LAU CASE Category: 22 - COMPUTER SCIENCE |
| NGT 5 50152 COLUMBIA UNIVERSITY 7272 THE DEVELOPMENT OF THE REFLECTION GRATING SPECTROM ATORY AND ITS APPLICATION TO THE STUDY OF ACCRETI 09/11/1997 - 09/30/1999 FY98: \$21,876 Total: \$43,596 <i>Prin. Invest.:</i> S KAHN <i>Tech. Officer:</i> HQ/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NAG 2 1030 CORNELL UNIVERSITY 7280 ANALYSIS OF STELLAR OCCULTATION & IMAGING DATA FOR THE RINGS OF SATRUM URANUS 03/06/1996 - 12/31/1998 FY98: \$0 Total: \$36,618 <i>Prin. Invest.:</i> P D NICHOLSON <i>Tech. Officer:</i> ARC/J N CUZZI CASE Category: 11 - ASTRONOMY |
| NGT 5 50158 COLUMBIA UNIVERSITY 7273 ARCMINUTE GAMMA-RAY IMAGING OF CENTAURUS A 09/11/1997 - 06/30/1999 FY98: \$21,876 Total: \$43,596 <i>Prin. Invest.:</i> C HAILEY <i>Tech. Officer:</i> HQ/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NAG 2 1034 CORNELL UNIVERSITY 7281 SOFIA SCIENCE WORKING GROUP 04/03/1996 - 10/31/1997 FY98: \$0 Total: \$11,275 <i>Prin. Invest.:</i> G J STACEY <i>Tech. Officer:</i> ARC/E F ERICKSON CASE Category: 11 - ASTRONOMY |
| NGT 5 50184 COLUMBIA UNIVERSITY 7274 THEORETICAL STUDY OF DARK MATTER SIGNATURES IN EGRET AND GLAST 05/27/1998 - 06/30/1999 FY98: \$21,876 Total: \$21,876 <i>Prin. Invest.:</i> M KAMIONKOWSKI <i>Tech. Officer:</i> HQ/A NURRIDIN CASE Category: 13 - PHYSICS | NAG 2 1052 CORNELL UNIVERSITY 7282 FOCUS: A FAINT-OBJECT SPECTROGRAPH FOR SOFIA 07/01/1996 - 10/31/1997 FY98: \$0 Total: \$74,450 <i>Prin. Invest.:</i> T L HERTER <i>Tech. Officer:</i> ARC/L QUAIFE, ARC/C B WILTSEE CASE Category: 11 - ASTRONOMY |
| NGT 8 52806 COLUMBIA UNIVERSITY 7275 GRADUATE STUDENT RESEARCHERS PROGRAM 08/01/1995 - 07/31/1998 FY98: -\$18,867 Total: \$47,133 <i>Prin. Invest.:</i> P KAARET <i>Tech. Officer:</i> MSFC/B A HARMON CASE Category: 13 - PHYSICS | NAG 2 1066 CORNELL UNIVERSITY 7283 SWIFT: A WIDFIELD IMAGING FABRY-PEROT FOR SOFIA 07/22/1996 - 12/31/1997 FY98: \$0 Total: \$120,000 <i>Prin. Invest.:</i> G J STACEY <i>Tech. Officer:</i> ARC/L QUAIFE, ARC/C B WILTSEE CASE Category: 11 - ASTRONOMY |

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| NAG 2 1072 KIWC: A WIDEFIELD MID INFRARED ARRAY CAMERA/SPECTROMETER FOR THE DAO 08/09/1996 – 12/31/1997 FY98: \$0 Total: \$57,500 <i>Prin. Invest.:</i> G J STACEY <i>Tech. Officer:</i> ARC/L QUAIFE, ARC/C B WILTSEE CASE Category: 11 – ASTRONOMY | NAG 3 2112 STUDIES OF GAS-PARTICLE INTERACTIONS IN A MICROGRAVITY FLOW CELL 01/15/1998 – 12/31/2001 FY98: \$100,000 Total: \$100,000 <i>Prin. Invest.:</i> M LOUGE <i>Tech. Officer:</i> LEIC/R HAKIMAZADEH CASE Category: 46 – MECHANICAL ENGR |
| NAG 2 1145 EVALUATION OF LOW BACKGROUND HIGH PERFORMANCE SILICON DETECTORS 07/22/1997 – 05/31/1999 FY98: \$0 Total: \$41,047 <i>Prin. Invest.:</i> T L HERTER <i>Tech. Officer:</i> ARC/C R MCCREIGHT, ARC/C E MCMURRAY CASE Category: 11 – ASTRONOMY | NAG 5 2436 MULTIWAVELENGTH STUDIES OF ROTATION – DRIVEN PULSARS 11/16/1993 – 01/11/1998 FY98: \$0 Total: \$138,696 <i>Prin. Invest.:</i> J M CORDES <i>Tech. Officer:</i> GSFC/J P NORRIS, GSFC/N WHITE CASE Category: 11 – ASTRONOMY |
| NAG 3 1451 NUMERICAL MODELING OF LOW-DENSITY PLUMES USING A MONTÉ CARLO TECHNIQUE 03/12/1993 – 11/30/1998 FY98: \$53,094 Total: \$383,593 <i>Prin. Invest.:</i> I D BOYD <i>Tech. Officer:</i> LERC/P F PENKO CASE Category: 13 – PHYSICS | NAG 5 2851 NEUTRO STAR POPULATION DYNAMICS 12/21/1994 – 01/14/1999 FY98: \$0 Total: \$156,000 <i>Prin. Invest.:</i> D F SCHERNOFF <i>Tech. Officer:</i> GSFC/D WEST CASE Category: 11 – ASTRONOMY |
| NAG 3 1791 MULTICOMPONENT DROPLET COMBUSTION IN MICROGRAVITY SOOT FORMATION, EMULSION, METTAL-BASE ADDITIVES AND 09/27/1995 – 09/25/1999 FY98: \$42,000 Total: \$210,000 <i>Prin. Invest.:</i> C T AVEDISIAN <i>Tech. Officer:</i> LERC/R O COLANTONIO CASE Category: 49 – ENGINEERING, OTHER | NAG 5 2985 LANDSLIDING, TOPOGRAPHY AND SEISMICITY: A PROPOSAL FOR THE NASA TOPOGRAPHY AND SURFACE CHANGE PROGRAM 06/28/1995 – 07/14/1997 FY98: \$0 Total: \$75,000 <i>Prin. Invest.:</i> B L ISACKS <i>Tech. Officer:</i> GSFC/H V FREY CASE Category: 19 – PHYSICAL SCIENCE, OTHER |
| NAG 3 1854 STABILITY OF SHAPE HELD BY SURFACE TENSION AND SUBJECTED TO FLOW 05/01/1996 – 04/30/2000 FY98: \$100,006 Total: \$292,009 <i>Prin. Invest.:</i> P H STEEN <i>Tech. Officer:</i> LERC/B S SINGH CASE Category: 43 – CHEMICAL ENGR | NAG 5 3097 THEORETICAL PHYSICS OF X-RAY AND GAMMA-RAY EMISSION FROM MAGNETIZED NEUTRON STARS 10/10/1995 – 10/14/1999 FY98: \$64,000 Total: \$192,000 <i>Prin. Invest.:</i> I M WASSERMAN <i>Tech. Officer:</i> GSFC/D WEST CASE Category: 11 – ASTRONOMY |
| NAG 3 1958 MODELING OF PLUME CONTAMINATION ON THE X-33 08/20/1996 – 12/17/1998 FY98: \$0 Total: \$168,400 <i>Prin. Invest.:</i> I D BOYD, D A CAUGHEY <i>Tech. Officer:</i> LERC/B D REED CASE Category: 42 – AERONAUTICAL ENGR | NAG 5 3302 X-RAY AND RADIO FLUCTUATIONS OF THE CRAB PULSAR 07/23/1996 – 01/31/1998 FY98: \$0 Total: \$27,100 <i>Prin. Invest.:</i> J CORDES <i>Tech. Officer:</i> GSFC/J SWANK CASE Category: 11 – ASTRONOMY |
| NAG 3 1969 HISTORY DEPENDENT TURBULENCE MODELING 09/23/1996 – 03/19/1998 FY98: \$0 Total: \$53,943 <i>Prin. Invest.:</i> J LUMLEY <i>Tech. Officer:</i> LERC/L A POUINELLI CASE Category: 41 – AERONAUTICAL ENGR | NAG 5 3347 ISO DATA ANALYSIS SUPPORT 08/12/1996 – 08/14/1999 FY98: \$185,500 Total: \$456,764 <i>Prin. Invest.:</i> G J HARWIT <i>Tech. Officer:</i> GSFC/D WEST CASE Category: 11 – ASTRONOMY |
| NAG 3 1993 SIMULATION OF CRACK GROWTH IN SPIRAL-BEVEL GEARS 12/11/1996 – 12/05/1999 FY98: \$74,405 Total: \$142,579 <i>Prin. Invest.:</i> A R INGRAFFEA <i>Tech. Officer:</i> LERC/D G LOWICKI CASE Category: 46 – MECHANICAL ENGR | NAG 5 3427 DEVELOPMENT AND APPLICATION OF NEW TOOLS FOR STATISTICAL DISCRETE ASTROPHYSICAL DATA 09/26/1996 – 09/30/1998 FY98: \$97,200 Total: \$202,853 <i>Prin. Invest.:</i> T J LOHIEDO <i>Tech. Officer:</i> GSFC/D K WEST CASE Category: 11 – ASTRONOMY |

NAG 5 3515 CORNELL UNIVERSITY **7300**
MULTIWAVELENGTH STUDIES OF SPIN-DRIVEN PULSARS
 01/22/1997 – 01/31/1999 FY98: \$15,000 Total: \$55,000
Prin. Invest.: J M CORDES
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3626 CORNELL UNIVERSITY **7301**
PHYSICAL STUDIES OF PLANETARY AND SATELLITE SURFACE
 02/12/1997 – 10/31/1998 FY98: \$157,000 Total: \$284,000
Prin. Invest.: J VEVERKA
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3627 CORNELL UNIVERSITY **7302**
SHAPES, SURFACES AND INTERIORS OF SATELLITES
 02/12/1997 – 09/30/1998 FY98: \$38,900 Total: \$73,900
Prin. Invest.: P C THOMAS
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3639 CORNELL UNIVERSITY **7303**
STUDY OF THE EFFECTS OF PHOTOMETRIC GEOMETRY ON SP MEASUREMENTS
 02/12/1997 – 09/30/1998 FY98: \$50,000 Total: \$100,000
Prin. Invest.: P HELFENSTEIN
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3795 CORNELL UNIVERSITY **7304**
DYNAMICAL STUDIES OF PLANETARY RINGS
 03/24/1997 – 09/30/1999 FY98: \$60,800 Total: \$117,100
Prin. Invest.: P D NICHOLSON
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3800 CORNELL UNIVERSITY **7305**
STATISTICS OF GAMMA RAY BURSTS
 11/27/1996 – 11/30/1998 FY98: \$15,000 Total: \$50,000
Prin. Invest.: I M WASSERMAN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3862 CORNELL UNIVERSITY **7306**
STUDIES OF THERMAL STRUCTURES AND MOTIONS OF PLANE
 01/24/1997 – 11/30/1998 FY98: \$103,000 Total: \$206,000
Prin. Invest.: D J GIERABCH
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 – ASTRONOMY

NAG 5 3910 CORNELL UNIVERSITY **7307**
PHYSICAL PROCESSES IN PLANETARY RINGS
 03/07/1997 – 12/31/1998 FY98: \$173,600 Total: \$347,200
Prin. Invest.: D A BURNS
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4189 CORNELL UNIVERSITY **7308**
STUDIES OF SATELLITE AND PLANETARY ATMOSPHERES
 03/24/1997 – 06/30/1998 FY98: \$13,481 Total: \$31,519
Prin. Invest.: D MCDONALD
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4205 CORNELL UNIVERSITY **7309**
STUDIES IN PLANETARY GEOSCIENCES
 03/19/1997 – 09/30/1998 FY98: \$134,903 Total: \$209,903
Prin. Invest.: S W SQUIRES
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4220 CORNELL UNIVERSITY **7310**
SURFACE PROPERTIES FROM RADAR AND RADIO OBSERVATION
 03/15/1997 – 02/28/1999 FY98: \$55,000 Total: \$106,900
Prin. Invest.: D B CAMPBELL
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4222 CORNELL UNIVERSITY **7311**
COST OPTIMIZATION OF MENUS AND FOOD PREPARATION FOR CELSS STATIONS
 03/15/1997 – 03/14/1998 FY98: \$0 Total: \$137,178
Prin. Invest.: J B HUNTER
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 4229 CORNELL UNIVERSITY **7312**
INVESTIGATION OF ANCIENT HIGHLAND/LACUSTRINE SITES ON MARS
 03/21/1997 – 03/31/1999 FY98: \$0 Total: \$40,000
Prin. Invest.: D W SQUIRES
Tech. Officer: GSFC/M BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4333 CORNELL UNIVERSITY **7313**
MARS SURFACE MINERALOGY FROM HST AND MARINER 6.7 I
 04/25/1997 – 04/30/2001 FY98: \$18,000 Total: \$43,000
Prin. Invest.: D F BELL
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4361 CORNELL UNIVERSITY **7314**
IMPLICATIONS OF EPISODIC SUBDUCTION
 04/09/1997 – 03/31/1999 FY98: \$35,000 Total: \$70,000
Prin. Invest.: D L TURCOTTE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4364 CORNELL UNIVERSITY **7315**
INTERDISCIPLINARY STUDIES OF COMPARATIVE PLANETOLOGY
 04/16/1997 – 04/14/1998 FY98: \$0 Total: \$73,000
Prin. Invest.: D SQUIRES
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4376 CORNELL UNIVERSITY **7316**
DEVELOPMENT OF AN EFFICIENT MID-INFRARED CROSS-DIS GRAPH
 05/08/1997 – 04/30/1999 FY98: \$0 Total: \$250,000
Prin. Invest.: D R HOUCK
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 – ASTRONOMY

NAG 5 4464 CORNELL UNIVERSITY **7317**
ELECTRON AND ION ACCELERATION BY ALFVEN WAVE BREAK
 05/21/1997 – 05/14/1999 FY98: \$76,000 Total: \$147,000
Prin. Invest.: D E SEYLER
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 – PHYSICS

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| NAG 5 4502 CORNELL UNIVERSITY 7318 OPERATE THE SPACECRAFT PLANETARY IMAGING FACILITY 05/06/1997 - 12/31/1998 FY98: \$37,000 Total: \$74,000 Prin. Invest.: D VEVERKA Tech. Officer: GSFC/P ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE | NAG 5 5036 CORNELL UNIVERSITY 7326 AN EXPERIMENT TO STUDY SPORADIC ATOM LAYERS IN THE EARTH'S MESOSPHERE AND LOWER THERMOSPHERE 04/25/1995 - 12/31/1998 FY98: \$0 Total: \$377,296 Prin. Invest.: M C KELLEY Tech. Officer: GSFC/R H PLESS CASE Category: 13 - PHYSICS |
| NAG 5 4503 CORNELL UNIVERSITY 7319 SIFI: AN IMAGING FABRY-PEROT FOR USE ON AST/RO 05/06/1997 - 03/31/1999 FY98: \$35,000 Total: \$132,351 Prin. Invest.: D J STACEY Tech. Officer: GSFC/H THRONSON CASE Category: 11 - ASTRONOMY | NAG 5 5038 CORNELL UNIVERSITY 7327 A CO-INVESTIGATOR PROPOSAL FOR THE STUDY OF AURORAL TURBULENCE 06/07/1995 - 01/31/1999 FY98: \$0 Total: \$126,965 Prin. Invest.: M C KELLEY Tech. Officer: GSFC/R H PLESS CASE Category: 13 - PHYSICS |
| NAG 5 4504 CORNELL UNIVERSITY 7320 LABORATORY MEASUREMENTS OF CELESTIAL SOLIDS 05/06/1997 - 04/30/1999 FY98: \$72,000 Total: \$144,000 Prin. Invest.: D J SIEVERS Tech. Officer: GSFC/H THRONSON CASE Category: 11 - ASTRONOMY | NAG 5 5045 CORNELL UNIVERSITY 7328 ARECIBO SUPPORT FOR STUDIES OF SPORADIC METALLIC LAYERS IN THE EARTH'S MESOSPHERE & LOWER THERMOSPHERE 07/28/1995 - 08/31/1999 FY98: \$31,171 Total: \$111,249 Prin. Invest.: C A TEPLEY Tech. Officer: GSFC/R H PLESS CASE Category: 13 - PHYSICS |
| NAG 5 4673 CORNELL UNIVERSITY 7321 MARS 96 PARTICIPATING SCIENTIST PROGRAM 06/17/1997 - 05/31/1998 FY98: \$0 Total: \$25,000 Prin. Invest.: D W SQUYRES Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY | NAG 5 5079 CORNELL UNIVERSITY 7329 CLEFT ACCELERATED PLASMAS EXPERIMENT ROCKET (CAPER FUNDING FOR THE FIRST YEAR OF THE GRANT) 05/15/1996 - 05/31/1999 FY98: \$130,446 Total: \$463,581 Prin. Invest.: P KINTNER Tech. Officer: GSFC/W B JOHNSON CASE Category: 13 - PHYSICS |
| NAG 5 4677 CORNELL UNIVERSITY 7322 ELASTIC AND THERMAL MEAS-AMORPHOUS AND CRYSTALLINE 08/08/1997 - 02/28/1998 FY98: \$0 Total: \$55,000 Prin. Invest.: D O POHL Tech. Officer: GSFC/D NAVA CASE Category: 11 - ASTRONOMY | NAG 5 5080 CORNELL UNIVERSITY 7330 LANGMUIR TURBULENCE ROCKET 06/12/1996 - 04/30/1999 FY98: \$104,284 Total: \$315,138 Prin. Invest.: M C KELLEY Tech. Officer: GSFC/L WGURKIN CASE Category: 11 - PHYSICS |
| NAG 5 4721 CORNELL UNIVERSITY 7323 COORDINATED STUDY OF ATMOSPHERIC AND SURFACE CHANGE OBSERVER AND OTHER DATA 06/05/1997 - 04/30/1998 FY98: \$0 Total: \$80,000 Prin. Invest.: D VEVERKA Tech. Officer: GSFC/J BERGSTRALH CASE Category: 11 - ASTRONOMY | NAG 5 5134 CORNELL UNIVERSITY 7331 CO-INVESTIGATOR PROPOSAL FOR ENSTROPY- FILAMENTATION OF AWARD CURRENTS 04/14/1997 - 03/31/1999 FY98: \$77,368 Total: \$150,704 Prin. Invest.: P KINTNER Tech. Officer: GSFC/W JOHNSON CASE Category: 11 - PHYSICS |
| NAG 5 4975 CORNELL UNIVERSITY 7324 TEMPLATE REACTIONS AND CHEMICAL EVOLUTION 07/01/1997 - 07/31/1998 FY98: \$0 Total: \$81,315 Prin. Invest.: D A USHER Tech. Officer: GSFC/M MEYER CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) | NAG 5 6111 CORNELL UNIVERSITY 7332 CLIMATE, EROSION, AND TECTONICS IN THE ANDES AND O 07/28/1997 - 03/31/1999 FY98: \$0 Total: \$112,500 Prin. Invest.: B ISACKS Tech. Officer: GSFC/M BATLUCK CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 5008 CORNELL UNIVERSITY 7325 AMICIST AURORAL MICROPHYSICS AND ION CONICS: INVESTIGA- 05/12/1993 - 12/31/1998 FY98: \$0 Total: \$505,103 Prin. Invest.: P KINTNER Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS CASE Category: 13 - PHYSICS | NAG 5 6273 CORNELL UNIVERSITY 7333 BIOLOGICAL AND PHYSICAL CONTROLS OF PRIMARY PRODUCT SUBSEQUENT FATE IN THE GEORGES BANK REGION: AN IN 08/29/1997 - 10/31/1998 FY98: \$0 Total: \$91,702 Prin. Invest.: G CHARLES Tech. Officer: GSFC/J JODER CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |

NAG 5 6281 CORNELL UNIVERSITY **7334**
COMPLEXITY AND NATURAL HAZARDS
 09/18/1997 – 12/31/1998 FY98: \$0 Total: \$69,683
Prin. Invest.: D L TURCOTTE
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6311 CORNELL UNIVERSITY **7335**
MAGNETOHYDRODYNAMICS AND PLASMA PHENOMENA IN PROTO STELLAR SYSTEMS
 10/06/1997 – 04/30/2000 FY98: \$50,000 Total: \$50,000
Prin. Invest.: P V LOVELACE
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 6437 CORNELL UNIVERSITY **7336**
PERCEPTION AND TRANSDUCTION OF THE GRAVITATIONAL STIMULUS
 10/28/1997 – 05/31/1999 FY98: \$170,007 Total: \$170,007
Prin. Invest.: R WAYNE
Tech. Officer: GSFC/L P CHAMBERS
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 6495 CORNELL UNIVERSITY **7337**
DEVELOPMENT OF 256X256 Si:SB AND Si:AS BIBBI DETECTORS FOR SOFIA
 10/31/1997 – 06/30/1998 FY98: \$280,000 Total: \$280,000
Prin. Invest.: D L HERTER
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 – ASTRONOMY

NAG 5 6783 CORNELL UNIVERSITY **7338**
RADAR SYNTHESIS IMAGING OF SMALL BODIES
 01/20/1998 – 12/31/1998 FY98: \$51,000 Total: \$51,000
Prin. Invest.: D B CAMPBELL
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 6893 CORNELL UNIVERSITY **7339**
A HIGH-ENERGY PULSAR SURVEY
 01/30/1998 – 01/31/1999 FY98: \$43,600 Total: \$43,600
Prin. Invest.: Z ARZOUMANIAN
Tech. Officer: GSFC/DK WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6987 CORNELL UNIVERSITY **7340**
NANO-ELECTRIC FIELD TECHNOLOGY (NEFTY)
 02/24/1998 – 03/31/2000 FY98: \$43,951 Total: \$43,951
Prin. Invest.: P M KINTNER
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 – ASTRONOMY

NAG 5 7264 CORNELL UNIVERSITY **7341**
ROTATING AND BINARY NEUTRON STARS IN GENERAL RELATIVITY – ATP
 04/29/1998 – 04/30/1999 FY98: \$55,000 Total: \$55,000
Prin. Invest.: S TUEKOLSKY
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7373 CORNELL UNIVERSITY **7342**
OBSERVATIONS OF LARGE-SCALE JOVIAN THERMAL WAVES
 05/12/1998 – 05/14/1999 FY98: \$61,400 Total: \$61,400
Prin. Invest.: J HARRINGTON
Tech. Officer: GSFC/L D DEMING
CASE Category: 11 – ASTRONOMY

NAG 5 7497 CORNELL UNIVERSITY **7343**
UNDERSTANDING METEOROLOGICAL CONTROLS OF GLACIER MASS BALANCE
 06/29/1998 – 06/30/2001 FY98: \$270,000 Total: \$270,000
Prin. Invest.: K H COOK
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 7508 CORNELL UNIVERSITY **7344**
ELASTIC PROPERTIES OF FILMS OF WATER AND NOBLE GASES CONDENSED AT LOW TEMPERATURES
 06/29/1998 – 05/31/2001 FY98: \$18,750 Total: \$18,750
Prin. Invest.: R O POHL
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 8 1357 CORNELL UNIVERSITY **7345**
R/S "DEFECTS, GROWTH, & ELASTIC PROPERTIES OF PROTEIN CRYSTALLS"
 05/15/1997 – 11/30/1998 FY98: \$120,000 Total: \$189,000
Prin. Invest.: R THORNE
Tech. Officer: MSFC/M PUSEY
CASE Category: 12 – CHEMISTRY

NAG 8 1372 CORNELL UNIVERSITY **7346**
R/S ENHANCEMENT OF CELL FUNCTION IN CULTURE BY CONTROLLED AGGREGATION UNDER MICROGRAVITY CONDITIONS
 06/18/1997 – 11/30/1998 FY98: \$143,000 Total: \$213,000
Prin. Invest.: W M SATTMAN
Tech. Officer: JSC/W M SATTMAN
CASE Category: 13 – PHYSICS

NAG 8 1438 CORNELL UNIVERSITY **7347**
STUDIES OF FREE RADICALS
 02/17/1998 – 01/31/2001 FY98: \$87,000 Total: \$87,000
Prin. Invest.: J M PARPIA
Tech. Officer: MSFC/J W POE
CASE Category: 11 – ASTRONOMY

NAG 8 1445 CORNELL UNIVERSITY **7348**
STUDIES OF FREE RADICALS
 02/16/1998 – 01/31/2003 FY98: \$196,000 Total: \$196,000
Prin. Invest.: D M LEE
Tech. Officer: MSFC/J W POE
CASE Category: 13 – PHYSICS

NAG 8 1518 CORNELL UNIVERSITY **7349**
MESOSCALE LANDSURFACE HEAT FLUX VARIABILITY OVER THE SOUTHERN GCIP AREA FROM ATMOSPHERIC SOUNDINGS
 06/01/1998 – 05/31/2001 FY98: \$115,000 Total: \$115,000
Prin. Invest.: W BRUTSAERT
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 9 654 CORNELL UNIVERSITY 7350
ENHANCEMENT OF CELL FUNCTION IN CULTURE BY CONTROL LED AGGREGATION
 10/28/1992 - 07/31/1998 FY98: \$0 Total: \$510,000
Prin. Invest.: W M SALTZMAN, K W LEONG
Tech. Officer: JSC/S GONDA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 310 CORNELL UNIVERSITY 7351
"STUDIES OF PLANETARY RINGS"
 03/15/1982 - 06/30/1997 FY98: -\$1 Total: \$1,448,353
Prin. Invest.: J A BURNS
Tech. Officer: HQ/J UNDERWOOD, HQ/J M BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 2293 CORNELL UNIVERSITY 7352
MAGNETOHYDRODYNAMICS OF PROTOSTELLAR NEBULAE
 05/22/1991 - 04/30/1997 FY98: \$0 Total: \$120,000
Prin. Invest.: LOVELACE
Tech. Officer: HQ/J A NUTH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 2551 CORNELL UNIVERSITY 7353
AN INFRARED CAMERA/SPECTROGRAPH FOR THE PALOMAR OBSERVATORY
 06/11/1991 - 12/31/1997 FY98: \$0 Total: \$611,000
Prin. Invest.: J R HOUCK
Tech. Officer: HQ/M D BICAY
CASE Category: 11 - ASTRONOMY

NAGW 2638 CORNELL UNIVERSITY 7354
TECTONIC/CLIMATIC DYNAMICS AND CRUSTAL EVOLUTION IN THE ANDEAN OROGEN
 08/02/1991 - 03/31/1998 FY98: \$0 Total: \$2,145,000
Prin. Invest.: B ISACKS, T E JORDAN, A L BLOOM
Tech. Officer: HQ/M BALTUCK, HQ/B J MALCOLM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3985 CORNELL UNIVERSITY 7355
"SURFACE PROPERTIES OF THE MOON, VENUS AND SMALL BODIES FROM RADAR"
 05/20/1994 - 08/31/1997 FY98: \$0 Total: \$123,967
Prin. Invest.: D CAMPBELL
Tech. Officer: HQ/R WILLIAMS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 4905 CORNELL UNIVERSITY 7356
SHAPES, GEOLOGY AND PHOTOMETRY OF ASTEROIDS GASPARA AND IDA
 01/30/1996 - 12/31/1997 FY98: \$0 Total: \$79,000
Prin. Invest.: P C THOMAS
Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 4986 CORNELL UNIVERSITY 7357
THE WAVELENGTH DEPENDENCE OF LUNAR PHOTOMETRIC PROPERTIES
 02/27/1996 - 12/31/1998 FY98: \$0 Total: \$90,000
Prin. Invest.: P HELFENSTEIN
Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 5062 CORNELL UNIVERSITY 7358
MARS SURFACE MINERALOGY FROM HST AND MARINER 6.7 IMAGES AND SPECTRA
 05/24/1996 - 04/30/1997 FY98: -\$2 Total: \$24,998
Prin. Invest.: J B FELL
Tech. Officer: HQ/H BRINTON, HQ/J RAHE
CASE Category: 13 - PHYSICS

NAGW 5117 CORNELL UNIVERSITY 7359
INFRARED IMAGING SPECTROSCOPY OF MARS & THE MOON
 07/31/1996 - 07/31/1997 FY98: \$0 Total: \$20,000
Prin. Invest.: J F FELL
Tech. Officer: HQ/E BARKER, HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NAS 5 31723 CORNELL UNIVERSITY 7360
EOS INVESTIGATION "GLOBAL HYDROLOGIC PROCESSES AND CLIMATE"
 12/10/1991 - 05/31/1999 FY98: \$0 Total: \$683,250
Prin. Invest.: W B RUTSAET
Tech. Officer: GS/CW LAU
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 3 468 CORNELL UNIVERSITY 7361
MICROGRAVITY SEGREGATION IN BINARY MIXTURES OF INELASTIC SPHERES DRIVEN BY VELOCITY FLUCTUATION GRA
 04/22/1996 - 04/30/2000 FY98: \$162,156 Total: \$508,364
Prin. Invest.: J T ENKINS, M LOUGE
Tech. Officer: LEF C/R HAKIMZADEH, LERC/E NELSON
CASE Category: 46 - MECHANICAL ENGR

NCC 5 84 CORNELL UNIVERSITY 7362
OUTER PLANET ATMOSPHERIC STRUCTURE.
 02/22/1995 - 02/28/1998 FY98: \$0 Total: \$281,933
Prin. Invest.: P J GIERASCH
Tech. Officer: GS/C/F M FLASAR
CASE Category: 11 - ASTRONOMY

NCC 5 132 CORNELL UNIVERSITY 7363
RADIATIVE STUDIES OF PLANETARY ATMOSPHERES
 02/14/1996 - 02/28/1999 FY98: \$0 Total: \$70,000
Prin. Invest.: P J GIERASCH
Tech. Officer: GS/C/M FLASAR
CASE Category: 11 - ASTRONOMY

NCC 5 298 CORNELL UNIVERSITY 7364
CARBON AND NUTRIENT STOCKS, SOIL WATER DYNAMICS, AND TRACE GAS FLUXES IN ABANDONED PASTURES AND AGR
 06/16/1998 - 02/28/1999 FY98: \$189,078 Total: \$189,078
Prin. Invest.: E FERNANDES
Tech. Officer: GS/C/D DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 322 CORNELL UNIVERSITY 7365
OUTER PLANETS ATMOSPHERIC STRUCTURE
 03/10/1998 - 02/28/1999 FY98: \$100,635 Total: \$100,635
Prin. Invest.: P J GIERASCH
Tech. Officer: GS/C/F M FLASAR
CASE Category: 11 - ASTRONOMY

NGT 30279 CORNELL UNIVERSITY **7366**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/06/1994 – 08/31/1997 FY98: -\$22,000 Total: \$0
Prin. Invest.: W BRUTSAERT
Tech. Officer: HQ/J S THEON, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 40012 CORNELL UNIVERSITY **7367**
NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM
 10/04/1989 – 01/31/1998 FY98: \$0 Total: \$2,601,000
Prin. Invest.: Y TERZLAN-TERZLAN
Tech. Officer: HQ/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 51223 CORNELL UNIVERSITY **7368**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/29/1994 – 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: B NICHOLSON, A L BLOOM
Tech. Officer: HQ/A NURRIDIN
CASE Category: 32 – GEOLOGICAL SCIENCE

NGT 51329 CORNELL UNIVERSITY **7369**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/16/1994 – 08/22/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: C E SAGAN
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 – ASTRONOMY

NGT 51374 CORNELL UNIVERSITY **7370**
GRADUATE STUDENT RESEARCHERS PROGRAM
 05/30/1995 – 06/30/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: K H COOK
Tech. Officer: HQ/A NOVOTING
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 51649 CORNELL UNIVERSITY **7371**
GRAD STUD RES PROG
 08/05/1996 – 07/31/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: P NICHOLSON
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 – ASTRONOMY

NGT 51710 CORNELL UNIVERSITY **7372**
GRAD STUDENT RESEARCH PROGRAM
 09/30/1996 – 08/31/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: D SALTZMAN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 43 – CHEMICAL ENGR

NGT 3 52318 CORNELL UNIVERSITY **7373**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/06/1996 – 06/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: D STEEN
Tech. Officer: LERC/D MONTEGANI/Q
CASE Category: 43 – CHEMICAL ENGR

NGT 5 17 CORNELL UNIVERSITY **7374**
PARAMETERIZATION OF EVAPORATION MODELS USING REMOTELY SENSED SOIL MOISTURE DATA
 07/15/1996 – 06/30/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: W BRUTSAERT
Tech. Officer: GSFC/G SOFFEN
CASE Category: 11 – ASTRONOMY

NGT 5 51 CORNELL UNIVERSITY **7375**
SYNOPTIC-TO SEASONAL-SCALE INFLUENCES ON MID-LATITUDE ABOUT THE WEATHER
 06/23/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: B L ISACKS
Tech. Officer: GSFC/M S BURRELL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 5 54 CORNELL UNIVERSITY **7376**
LARGE-SCALE SOIL MOISTURE AND ATMOSPHERIC WATER BUDGET RECYCLING IN THE SOUTHERN GREAT PLAINS BY INTEGRATING
 06/23/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D LUCAS
Tech. Officer: GSFC/S D SCHUBERT
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 5 30038 CORNELL UNIVERSITY **7377**
THE INTERNAL NITROGEN CYCLE OF TEMPERATE FORESTS MECHANISMS IN THE ABSENCE OF HUMAN DISTURBANCE
 10/17/1996 – 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: L O HEDIN
Tech. Officer: GSFC/G ASRAR
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 5 30126 CORNELL UNIVERSITY **7378**
INTERFEROMETRIC SAR MEASUREMENTS OF SEISMIC & INTER-SEISMIC STRAIN NEAR A MAJOR SEISMIC GAP IN PERU
 10/10/1997 – 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: B ISACKS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 40019 CORNELL UNIVERSITY **7379**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM.
 01/06/1997 – 01/31/2000 FY98: \$475,000 Total: \$855,000
Prin. Invest.: Y TERZIAN
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50027 CORNELL UNIVERSITY **7380**
PRE-AGGREGATION OF CELLS UNDER MICROGRAVITY CONDITIONS
 07/15/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: M SALTZMAN
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50036 CORNELL UNIVERSITY **7381**
MICROGRAVITY-INDUCED NERVOUS TISSUE FORMULATION USING
 07/14/1997 – 08/31/1999 FY98: \$0 Total: \$22,000
Prin. Invest.: S SALTZMAN
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50116 CORNELL UNIVERSITY **7382**
GRADUATE STUDENT RESEARCHERS PROGRAM - STUDENT: C
 09/04/1997 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: P NICHOLSON
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50218 CORNELL UNIVERSITY **7383**
VOLUMETRIC ASSESSMENT OF FACTORS GOVERNING SEASONAL AND INTERANNUAL FLUXES OF PHYTOPLANKTON FROM
 09/17/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: C H GREENE, FISHER
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 90070 CORNELL UNIVERSITY **7384**
USAR FOR BRYAN VANDROVEC AND MELANIE DIEZ
 05/19/1997 - 08/14/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: K HOVER
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 22 - COMPUTER SCIENCE

NGT 9 12 CORNELL UNIVERSITY **7385**
CHARACTERIZATION OF VEGETABLE CROP CULT FOR ALLS
 07/03/1996 - 09/30/1997 FY98: \$0 Total: \$24,400
Prin. Invest.: R W LANGHANS
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 55 - AGRICULTURE

NGT 9 16 CORNELL UNIVERSITY **7386**
SELECTION & CHARAC OF VEG CROP CULTIVARS ...
 05/16/1997 - 09/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: R W LANGHANS
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 17 CORNELL UNIVERSITY **7387**
DEV & EVAL SINGLE CELL OIL PRODUCT ...
 05/16/1997 - 07/31/1999 FY98: \$22,000 Total: \$43,306
Prin. Invest.: J B HUNTER
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 55 - AGRICULTURE

NGT10 52600 CORNELL UNIVERSITY **7388**
A GRADUATE STUDENT RESEARCHERS PROGRAM
 06/20/1995 - 12/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: L ALBRIGHT
Tech. Officer: KSC/J SAGER
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT10 52607 CORNELL UNIVERSITY **7389**
GRADUATE STUDENT RESEARCHERS PROGRAM
 04/18/1996 - 12/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: C F JOHNSON
Tech. Officer: KSC/J SAGER
CASE Category: 55 - AGRICULTURE

NAG 8 1263 HARTWICK COLLEGE **7390**
STUDY JOVE
 01/22/1997 - 08/31/1998 FY98: \$0 Total: \$68,000
Prin. Invest.: P T E UCKLEY, A F MOORE
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 19 - ENVIRONMENTAL SCI, OTHER

NAG 5 4678 HOFSTRA UNIVERSITY **7391**
OCEAN SURFACE STRESS MEASUREMENTS USING SATELLITE
 05/27/1997 - 05/31/1998 FY98: \$0 Total: \$93,503
Prin. Invest.: D E WEISSMAN
Tech. Officer: GSFC/B C DOUGLAS
CASE Category: 13 - OCEANOGRAPHY

NAG 5 7503 HOFSTRA UNIVERSITY **7392**
**OCEAN SURFACE STRESS MEASUREMENTS USING SATELLITE SCAT-
 TEROMETERS**
 06/09/1998 - 05/31/1999 FY98: \$125,224 Total: \$125,224
Prin. Invest.: D E WEISSMAN
Tech. Officer: GSFC/E J LINDSTROM
CASE Category: 19 - ENVIRONMENTAL SCI, OTHER

NAGW 5174 HOFSTRA UNIVERSITY **7393**
**OCEAN SURFACE STRESS MEASUREMENTS USING SATELLITE SCAT-
 TEROMETERS**
 09/06/1996 - 05/31/1997 FY98: \$0 Total: \$87,041
Prin. Invest.: D WEISSMAN
Tech. Officer: HQ/E C DOUGLAS
CASE Category: 13 - OCEANOGRAPHY

NAG 5 3706 HUNTER COLLEGE OF THE CITY UNIV OF NY **7394**
**QUANTIFICATION OF BONE GROWTH RATE VARIABILITY IN RATS (NEAR ZERO
 G) AND MACROGRAVITY (2G)"**
 12/11/1996 - 09/30/1997 FY98: \$0 Total: \$28,000
Prin. Invest.: T G B ROMAGE
Tech. Officer: GSFC/M A SHEPANEK
CASE Category: 53 - LIFE SCIENCE, OTHER

NAG 5 6606 HUNTER COLLEGE OF THE CITY UNIV OF NY **7395**
**QUANTIFICATION OF BONE GROWTH RATE VARIABILITY IN RATS EXPOSED
 TO MICRO- (NEAR ZERO G) AND MACROGRAVITY**
 12/16/1997 - 09/30/1998 FY98: \$52,000 Total: \$52,000
Prin. Invest.: T G B ROMAGE
Tech. Officer: GSFC/M A SHEPANEK
CASE Category: 53 - LIFE SCIENCE, OTHER

NAG 8 1259 HUNTER COLLEGE OF THE CITY UNIV OF NY **7396**
JOVE RESEARCH
 01/17/1997 - 08/31/1999 FY98: \$60,000 Total: \$208,000
Prin. Invest.: L COHEN, S GREENBAUM, P COMBS
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1273 IONA COLLEGE **7397**
RESEARCH FOR JOVE
 01/21/1997 - 08/31/1999 FY98: \$11,000 Total: \$53,000
Prin. Invest.: R NOVAK
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 11 - ASTRONOMY

NGT 5 90009 LA GUARDIA COMMUNITY COLLEGE **7398**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 01/06/1997 - 08/14/1998 FY98: \$0 Total: \$96,000
Prin. Invest.: R MCLEOD
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 90079 LA GUARDIA COMMUNITY COLLEGE **7399**
USAR (8) BERRY-\$6600 (PLUS \$5400 IN CARRYOVER); FO RTUNE, MATOS, MERCER, ORMAZA, PROUT AND SAVERINO
 10/17/1997 - 08/31/1999 FY98: \$74,850 Total: \$74,850
Prin. Invest.: R MCLEOD
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3480 MEDGAR EVERS COLLEGE **7400**
SCIENCE AND TECHNOLOGY TEACHERS FOR THE NEXT MILLE
 02/11/1997 - 08/31/1997 FY98: \$0 Total: \$399,984
Prin. Invest.: L P JOHNSON
Tech. Officer: GSFC/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4657 MEDGAR EVERS COLLEGE **7401**
SCIENCE AND TECHNOLOGY TEACHERS FOR THE NEXT MILLE NIUM
 08/02/1995 - 08/31/1998 FY98: \$0 Total: \$199,977
Prin. Invest.: L P JOHNSON
Tech. Officer: HQ/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 205 MEDGAR EVERS COLLEGE **7402**
MEDGAR EVERS COLLEGE OCEAN AND ENVIRONMENTAL SCIEN
 06/11/1997 - 05/31/1999 FY98: \$100,000 Total: \$299,993
Prin. Invest.: L P JOHNSON
Tech. Officer: GSFC/A A LACIS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 2 895 MT SINAI SCH OF MED OF THE CUNY **7403**
OSTEOBLAST ADHESION & PHENOTYPE IN MICROGRAVITY
 04/22/1994 - 06/30/1998 FY98: \$0 Total: \$137,860
Prin. Invest.: R J MAJESKA
Tech. Officer: ARC/E M HOLTON
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 946 MT SINAI SCH OF MED OF THE CUNY **7404**
ANATOMICAL STUDIES OF CENTRAL VESTIBULAR ADAPTATIO N
 01/10/1995 - 11/30/1998 FY98: \$196,338 Total: \$459,884
Prin. Invest.: G R HOLSTEIN, G R HOLSTEIN
Tech. Officer: ARC/W E HINDS, ARC/C M WINGET
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1191 MT SINAI SCH OF MED OF THE CUNY **7405**
**NITRIC OXIDE SIGNALING IN HYPERGRAVITY IN DUCED NE URONAL PLAS-
 TICITY**
 03/23/1998 - 10/31/1998 FY98: \$21,070 Total: \$21,070
Prin. Invest.: G R HOLSTEIN, G P MARTINELLI
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 6276 MT SINAI SCH OF MED OF THE CUNY **7406**
"VESTIBULAR INFLUENCES ON AUTONOMIC CARDIOVASCULAR
 09/08/1997 - 06/30/1998 FY98: \$0 Total: \$320,004
Prin. Invest.: H KAUFMANN
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 816 MT SINAI SCH OF MED OF THE CUNY **7407**
THYROID FOLLICLE FORMATION IN MICROGRAVITY
 08/11/1995 - 09/17/1999 FY98: \$156,000 Total: \$605,307
Prin. Invest.: A MARTIN
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 9 19441 MT SINAI SCH OF MED OF THE CUNY **7408**
**SPATIAL ORIENTATION OF VESTIBULO-OCULAR REFLEX AND VELOCITY
 STORAGE**
 03/01/1996 - 10/09/1999 FY98: \$390,000 Total: \$1,396,010
Prin. Invest.: D COHEN, M.D., M DAI, M.D.
Tech. Officer: JSC/A M LEE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 951 NEW YORK UNIVERSITY **7409**
EFFECTS OF GRAVITY ON POSTNATL MOTOR DEVELOPMENT
 12/22/1994 - 08/31/1998 FY98: \$135,140 Total: \$488,467
Prin. Invest.: K D WALTON
Tech. Officer: ARC/W E HINDS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4457 NEW YORK UNIVERSITY **7410**
**CELSS CROP SIMULATIONS FOR SYSTEMS ENGINEERING AND PRODUC-
 TIVITY OPTIMIZATION**
 05/09/1997 - 03/31/1998 FY98: \$0 Total: \$119,998
Prin. Invest.: T VOLK
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 7583 NEW YORK UNIVERSITY **7411**
JOINT CENTER FOR COMPUTATIONAL MODELING (JCCM)
 08/04/1998 - 12/31/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: M BERGER
Tech. Officer: GSFC/D S SPICER
CASE Category: 21 - MATHEMATICS

NAG 9 1024 NEW YORK UNIVERSITY **7412**
**CANCER RISK MECHANISM FOLLOWING REPEATED EXPOSURE TO
 HIGH LET RADIATION**
 06/04/1998 - 06/04/1999 FY98: \$118,000 Total: \$118,000
Prin. Invest.: F J BURNS, NONE
Tech. Officer: JSC/F A CUCINOTTA
CASE Category: 56 - MEDICL

NCC 5 125 NEW YORK UNIVERSITY **7413**
EARTH SYSTEMS SCIENCE RESEARCH
 10/26/1995 - 12/31/1998 FY98: \$30,000 Total: \$89,999
Prin. Invest.: M HOFFERT
Tech. Officer: GSFC/CROSENZWEIG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 8 55 NIAGARA UNIVERSITY **7414**
LIGHTNING IMAGING SENSOR STUDY
 08/17/1994 - 05/16/1999 FY98: \$0 Total: \$188,271
Prin. Invest.: W BOECK
Tech. Officer: MSFC/R BLAKESLEE, MSFC/S J GOODMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1051 POLYTECHNIC UNIVERSITY - BROOKLYN, NY **7415**
CHAMBER EXPERIMENTS FOR SIMULATING THE CERTIFICIAL PLASMA LAYERS PRODUCED IN THE UPPER ATMOSPHERE
 06/15/1988 - 11/14/1997 FY98: \$0 Total: \$206,605
Prin. Invest.: S P KUO
Tech. Officer: GSFC/R F BENSON
CASE Category: 13 - PHYSICS

NAG 8 1370 POLYTECHNIC UNIVERSITY - BROOKLYN, NY **7416**
R/S "DIFFUSION, VISCOSITY AND CRYSTAL GROWTH OF PROTEINS IN MICROGRAVITY"
 05/28/1997 - 11/30/2000 FY98: \$53,000 Total: \$112,000
Prin. Invest.: A MYERSON
Tech. Officer: MSFC/B FACEMIRE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1455 POLYTECHNIC UNIVERSITY - BROOKLYN, NY **7417**
R/S THERMODYNAMIC & SPECTROSCOPIC STUDIES OF SECONDARY NUCLEATION IN MICROGRAVITY
 02/01/1998 - 01/31/2000 FY98: \$50,000 Total: \$50,000
Prin. Invest.: A S MEYERSON
Tech. Officer: MSFC/C TALLEY
CASE Category: 43 - CHEMICAL ENGR

NAG 8 1561 POLYTECHNIC UNIVERSITY - BROOKLYN, NY **7418**
FURTHER VERIFICATION OF THE RESIDUAL APPROACH
 09/10/1998 - 09/15/1999 FY98: \$20,000 Total: \$20,000
Prin. Invest.: F B LIN
Tech. Officer: MSFC/M L TINKER, MSFC/F M BUGG
CASE Category: 49 - ENGINEERING, OTHER

NAG10 173 POLYTECHNIC UNIVERSITY - BROOKLYN, NY **7419**
CONTROL OF THE DEPOSITION OF ELECTRO-ACTIVE POLYMERS AND THEIR BLENDS ON METAL SURFACES
 07/12/1995 - 08/01/1997 FY98: \$0 Total: \$93,019
Prin. Invest.: K LEVON
Tech. Officer: KSC/K THOMPSON
CASE Category: 12 - CHEMISTRY

NAG 1 1939 RENSSELAER POLYTECHNIC INSTITUTE **7420**
THE DESIGN AND SYNTHESIS OF EPOXY MATRIX COMPOSITES CURABLE BY ELECTRON BEAM
 06/02/1997 - 05/31/1999 FY98: \$80,253 Total: \$100,253
Prin. Invest.: J V CRIVELLO
Tech. Officer: LARC/J W CONNELL, LARC/N J JOHNSTON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2075 RENSSELAER POLYTECHNIC INSTITUTE **7421**
ASSESSMENT STUDY OF THE STATE OF THE ART IN ADAPTIVE CONTROL & ITS APPLICATIONS TO AIRCRAFT CONTROL
 06/24/1998 - 10/31/1998 FY98: \$30,000 Total: \$30,000
Prin. Invest.: H KAUFMAN
Tech. Officer: LARC/S M JOSHI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2089 RENSSELAER POLYTECHNIC INSTITUTE **7422**
EVOLUTION IN DECENTRALIZED EMERGENT COMPUTATION MY 1/2
 07/08/1998 - 08/31/2000 FY98: \$25,000 Total: \$25,000
Prin. Invest.: P H JELA, K E JANSEN
Tech. Officer: LARC/J SOBIESKI, LARC/J R ROGERS
CASE Category: 11 - AERONAUTICAL ENGR

NAG 3 1696 RENSSELAER POLYTECHNIC INSTITUTE **7423**
MINORITY ENGINEERING PROGRAM
 01/18/1995 - 11/15/1997 FY98: \$0 Total: \$205,000
Prin. Invest.: M D SMITH
Tech. Officer: LEFC/S MERRITT
CASE Category: 39 - MULTIDISCIPLINARY, OTHER

NAG 3 1834 RENSSELAER POLYTECHNIC INSTITUTE **7424**
A STUDY OF THE CONSTRAINED VAPOR BUBBLE THERMOSYPHON
 04/22/1996 - 04/21/2000 FY98: \$199,427 Total: \$472,520
Prin. Invest.: P C WYNER
Tech. Officer: LEFC/J C DUH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1856 RENSSELAER POLYTECHNIC INSTITUTE **7425**
STUDIES OF CYCLIC AND LINEAR CARBOSILANES AS SINGLE-SOURCE SILIC PRECURSORS
 05/03/1996 - 10/21/1998 FY98: \$30,000 Total: \$105,000
Prin. Invest.: L V I TERRANTE
Tech. Officer: LEFC/D LARKIN
CASE Category: 12 - CHEMISTRY

NAG 3 2062 RENSSELAER POLYTECHNIC INSTITUTE **7426**
MICROGRAVITY INSTITUTE FOR TEACHERS AT RENSSELAER POLYTECHNIC INSTITUTE
 07/15/1997 - 09/30/1997 FY98: \$0 Total: \$30,000
Prin. Invest.: M B ROSS
Tech. Officer: LEFC/T D RODGERS, LERC/D C MALARIK
CASE Category: 17 - METAL & MATERIALS ENGR

NAG 5 3339 RENSSELAER POLYTECHNIC INSTITUTE **7427**
THE ORIGIN AND EVOLUTION OF DUST IN INTERSTELLAR AND CIRCUMSTELLAR ENVIRONMENTS
 08/13/1996 - 08/31/1998 FY98: \$0 Total: \$128,587
Prin. Invest.: D C WHITTET
Tech. Officer: GSFC/D WEST
CASE Category: 1 - ASTRONOMY

NAG 5 3376 RENSSELAER POLYTECHNIC INSTITUTE **7428**
ULTRAVIOLET INTERSTELLAR POLARIZATION & NEW INSIGHTS INTO INTERSTELLAR DUST GRAINS
 09/10/1996 - 09/11/1999 FY98: \$21,381 Total: \$31,642
Prin. Invest.: D C WHITTET
Tech. Officer: GSFC/D K WEST
CASE Category: 1 - ASTRONOMY

NAG 5 3725 RENSSELAER POLYTECHNIC INSTITUTE **7429**
METEORITE SPECTROSCOPY AND CHARACTERIZATION OF ASTEROID MATERIALS
 02/12/1997 - 02/11/1999 FY98: \$40,000 Total: \$96,000
Prin. Invest.: M J CAFFEY
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4557 RENSSELAER POLYTECHNIC INSTITUTE **7430**
A LABORATORY INVESTIGATION OF PHOTOCHEMICAL PROCESSES
 06/23/1997 – 10/31/1998 FY98: \$150,120 Total: \$278,120
Prin. Invest.: D P FERRIS
Tech. Officer: GSFC/M MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 7410 RENSSELAER POLYTECHNIC INSTITUTE **7431**
ISO OBSERVATIONS OF INTERSTELLAR DUST ABSORPTION
 06/08/1998 – 08/31/1998 FY98: \$55,000 Total: \$55,000
Prin. Invest.: D WHITTET
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7598 RENSSELAER POLYTECHNIC INSTITUTE **7432**
ORIGIN OF LIFE: INTERSTELLAR MOLECULES TO INTRONS
 07/15/1998 – 07/14/2002 FY98: \$474,746 Total: \$474,746
Prin. Invest.: D P FERRIS
Tech. Officer: GSFC/M A MEYER
CASE Category: 11 – ASTRONOMY

NAG 8 1265 RENSSELAER POLYTECHNIC INSTITUTE **7433**
DEFECT GENERATION IN CVT GROWN HG1-XCDXTE EPITAXIAL LAYERS UNDER NORMAL AND REDUCED GRAVITY
 05/30/1996 – 05/29/1998 FY98: \$75,000 Total: \$300,000
Prin. Invest.: H WIEDEMEIER
Tech. Officer: MSFC/C R TALLEY, MSFC/R W ALLEN
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 8 1290 RENSSELAER POLYTECHNIC INSTITUTE **7434**
"INVESTIGATIONS OF FREE STREAM FLOW TECHNOLOGIES"
 12/18/1996 – 12/31/1998 FY98: \$45,904 Total: \$245,880
Prin. Invest.: L N MYRABO
Tech. Officer: MSFC/G A ROBERSTON
CASE Category: 99 – MULTI INTERDISCIPL. OTHER

NAG 8 1379 RENSSELAER POLYTECHNIC INSTITUTE **7435**
RESEARCH "PROTEIN CRYSTAL BASED NANOMATERIALS"
 06/11/1997 – 11/30/1998 FY98: \$145,000 Total: \$257,000
Prin. Invest.: J A BELL
Tech. Officer: MSFC/C TALLEY, MSFC/B PENN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1468 RENSSELAER POLYTECHNIC INSTITUTE **7436**
R/S EVOLUTION OF LOCAL MICROSTRUCTURES SPATIAL INSTABILITIES OF COARSENING CLUSTERS
 02/24/1998 – 02/23/2002 FY98: \$47,000 Total: \$47,000
Prin. Invest.: M E GLICKSMAN
Tech. Officer: MSFC/L B JETER
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1488 RENSSELAER POLYTECHNIC INSTITUTE **7437**
R/S TRANSIENT DENDRITIC SOLIDIFICATION EXPERIMENT
 02/24/1998 – 02/23/2002 FY98: \$96,600 Total: \$96,600
Prin. Invest.: M B KOSS, M E GLICKSMAN
Tech. Officer: MSFC/L B JETER
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 2781 RENSSELAER POLYTECHNIC INSTITUTE **7438**
A LABORATORY INVESTIGATION OF SOME PHOTOCHEMICAL PROCESSES OF TITAN
 12/13/1991 – 04/30/1997 FY98: -\$2,478 Total: \$601,522
Prin. Invest.: J P FERRIS
Tech. Officer: HQ/J D RUMMEL
CASE Category: 12 – CHEMISTRY

NAGW 3144 RENSSELAER POLYTECHNIC INSTITUTE **7439**
THE ORIGIN AND EVOLUTION OF DUST IN INTERSTELLAR AND CIRCUMSTELLAR ENVIRONMENTS
 08/04/1992 – 08/31/1997 FY98: \$0 Total: \$455,962
Prin. Invest.: D WHITTET
Tech. Officer: HQ/G R RIEGLER
CASE Category: 11 – ASTRONOMY

NAGW 4039 RENSSELAER POLYTECHNIC INSTITUTE **7440**
"ISO OBSERVATIONS OF INTERSTELLAR DUST ABSORPTION"
 06/17/1994 – 09/30/1997 FY98: \$0 Total: \$72,997
Prin. Invest.: D C WHITTET
Tech. Officer: HQ/L J CAROFF
CASE Category: 11 – ASTRONOMY

NAS 3 25368 RENSSELAER POLYTECHNIC INSTITUTE **7441**
ISOTHERMAL DENDRITIC GROWTH
 12/15/1988 – 12/31/1998 FY98: \$400,000 Total: \$3,363,263
Prin. Invest.: M E GLICKSMAN
Tech. Officer: LERC/E A WINSA, LERC/G A KRAFT
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 2 5168 RENSSELAER POLYTECHNIC INSTITUTE **7442**
THE ROLE OF GRAIN SURFACE REACTIONS IN THE CHEMISTRY OF STAR FORMING REGIONS
 01/09/1996 – 12/31/1998 FY98: \$0 Total: \$41,000
Prin. Invest.: P ROBERGE
Tech. Officer: ARC/D G TIELENS
CASE Category: 11 – ASTRONOMY

NCC 8 97 RENSSELAER POLYTECHNIC INSTITUTE **7443**
SPACE AND GROUND BASED CRYSTAL GROWTH USING MAGNETICALLY COUPLED BAFFLE
 06/13/1996 – 06/13/2000 FY98: \$92,605 Total: \$321,909
Prin. Invest.: A G OSTROGORSKY
Tech. Officer: MSFC/D A SCHAFER
CASE Category: 11 – ASTRONOMY

NCC 8 112 RENSSELAER POLYTECHNIC INSTITUTE **7444**
VERY ADVANCED HRST EXPLOITING OFF-BOARD BEAMED POWER
 06/28/1996 – 06/30/1998 FY98: \$0 Total: \$100,559
Prin. Invest.: L N MYRABO
Tech. Officer: GSFC/J T HOWELL
CASE Category: 41 – AERONAUTICAL ENGR

NGT 51049 RENSSELAER POLYTECHNIC INSTITUTE **7445**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/14/1993 – 05/28/1997 FY98: -\$3,672 Total: \$62,328
Prin. Invest.: L N MYRABO, H T NAGAMATSU
Tech. Officer: LERC/F MONTEGANI
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52126 RENSSELAER POLYTECHNIC INSTITUTE **7446**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/22/1996 - 06/30/1999 FY98: \$10,000 Total: \$54,000
Prin. Invest.: T A BLANEHET, W G SAWYER
Tech. Officer: LARC/G B NORTHAM, LARC/P O RANSONE
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 1 52160 RENSSELAER POLYTECHNIC INSTITUTE **7447**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/22/1997 - 09/21/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: K E JARSEN
Tech. Officer: LARC/M H CARPENTER
CASE Category: 46 - MECHANICAL ENGR

NGT 3 52310 RENSSELAER POLYTECHNIC INSTITUTE **7448**
THE THREE-DIMENSIONAL NATURE OF DENDRITIC SOLIDIFICATION PROCESSES
 06/21/1996 - 06/30/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: M E GLICKSMAN
Tech. Officer: LERC/F MONTEGANI
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 3 52341 RENSSELAER POLYTECHNIC INSTITUTE **7449**
POWDER LUBRICATED JOURNAL BEARING DEVELOPMENT
 06/29/1998 - 08/31/1999 FY98: \$20,000 Total: \$20,000
Prin. Invest.: J A TICHY
Tech. Officer: LERC/D MONTEGANI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90025 RENSSELAER POLYTECHNIC INSTITUTE **7450**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 01/24/1997 - 08/14/1997 FY98: \$0 Total: \$36,000
Prin. Invest.: N SMITH
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NGT 8 52802 RENSSELAER POLYTECHNIC INSTITUTE **7451**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/28/1995 - 07/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: M E GLICKSMAN
Tech. Officer: MSFC/F SIX, MSFC/F R SZOFRAN
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1153 ROCHESTER INSTITUTE OF TECHNOLOGY **7452**
COMPUTATIONAL & EXPERIMENTAL INVESTIGATION OF SPACE TRANSPORT VEHICLE TURBOPUMP DESIGN FOR DEEP-THROT
 03/13/1990 - 07/27/1997 FY98: \$0 Total: \$162,224
Prin. Invest.: A OGUT
Tech. Officer: LERC/J A HEMMINGER, LERC/R J CAPALDI
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 3443 ROCHESTER INSTITUTE OF TECHNOLOGY **7453**
ABSOLUTE CALIBRATION, ATMOSPHERIC CORRECTION AND APPLICATION OF LANDSAT-7 ETM+ THERMAL INFRARED...
 11/03/1996 - 10/31/1998 FY98: \$183,659 Total: \$393,276
Prin. Invest.: J SCHOTTMS
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3728 ROCHESTER INSTITUTE OF TECHNOLOGY **7454**
DEVELOPMENT OF BACK ILLUMINATED PREAMP PER PIXEL DEVICE ARRAYS
 02/21/1997 - 12/31/1998 FY98: \$97,167 Total: \$225,818
Prin. Invest.: D NINKOV
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 6486 ROCHESTER INSTITUTE OF TECHNOLOGY **7455**
CHARACTERIZATION AND DEVELOPMENT OF CHARGE INJECTION DEVICE ARRAYS FOR SPACE APPLICATIONS
 10/31/1997 - 08/31/1999 FY98: \$129,569 Total: \$129,569
Prin. Invest.: D NINKOV
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1008 ROCHESTER INSTITUTE OF TECHNOLOGY **7456**
JOVE
 11/24/1993 - 08/18/1998 FY98: \$0 Total: \$113,000
Prin. Invest.: M L WINGSWORTH, Z NINKOV
Tech. Officer: MSFC/F SIX
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4135 ROCHESTER INSTITUTE OF TECHNOLOGY **7457**
CHARACTERIZATION AND DEVELOPMENT OF CHARGE INJECTION DEVICE ARRAYS
 09/16/1994 - 02/18/1998 FY98: \$0 Total: \$368,350
Prin. Invest.: Z NINKOV
Tech. Officer: HQ T KOSTIUK
CASE Category: 11 - ASTRONOMY

NCC 2 937 ROCHESTER INSTITUTE OF TECHNOLOGY **7458**
AN INVESTIGATION OF THE CONVERGENCE CHARACTERISTICS OF THE PMARC INTERNAL FLOW CALCULATION APPLIED.
 01/23/1996 - 08/1/1997 FY98: -\$381 Total: \$29,598
Prin. Invest.: A GIOSH, PH.D
Tech. Officer: AR/R D MCMAHON, ARC/A R BOONE
CASE Category: 41 - AERONAUTICAL ENGR

NCC13 98001 STATE UNIV OF NEW YORK - ALBANY **7459**
A CENTER FOR EXPLORING AND DEVELOPING COMMERCIAL APPLICATIONS OF REMOTE SENSING AND GEO-SPATIAL TECH
 09/01/1998 - 08/1/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: P HOPKINS
Tech. Officer: SSF/H CARR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2242 STATE UNIV OF NEW YORK - ALBANY **7460**
SURFACE EXCHANGE OBSERVATIONS IN THE CANADIAN BOREAL FOREST REGION
 04/08/1993 - 04/14/1998 FY98: \$0 Total: \$822,500
Prin. Invest.: D B FITZGERALD
Tech. Officer: GSFC/F G HALL, GSFC/P SELLARS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2714 STATE UNIV OF NEW YORK - ALBANY **7461**
REGIONAL - SCALE CHEMICAL IMPACTS OF AIRCRAFT EXHAUST
 08/31/1994 - 04/30/1998 FY98: \$19,600 Total: \$427,130
Prin. Invest.: C W WALEK
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4706 STATE UNIV OF NEW YORK – ALBANY **7462**
ABUNDANCES AND DISTRIBUTIONS OF VOLATILE ELEMENTS LUNAR VOLCANIC GLASS SPHERES
 06/11/1997 – 12/31/1998 FY98: \$0 Total: \$35,172
Prin. Invest.: D W DELANO
Tech. Officer: GSFC/D F NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 6227 STATE UNIV OF NEW YORK – ALBANY **7463**
DETECTING INTERACTIONS BETWEEN VEGETATION AND THE THE NORTH-EASTERN UNITED STATES
 09/12/1997 – 09/30/1999 FY98: \$91,870 Total: \$207,037
Prin. Invest.: D R FITZJARRALD
Tech. Officer: GSFC/D WICKLAND
CASE Category: 11 – ASTRONOMY

NAG 5 7469 STATE UNIV OF NEW YORK – ALBANY **7464**
CASE STUDY INVESTIGATIONS OF LARGE-AMPLITUDE INERT IA-GRAVITY WAVEENVIRONMENTS AND MESOSCALE
 06/03/1998 – 12/31/1999 FY98: \$34,936 Total: \$34,936
Prin. Invest.: L BOSART
Tech. Officer: GSFC/A NSGRI
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 9 1309 STATE UNIV OF NEW YORK – ALBANY **7465**
RESEARCH"STUDY OF BENT CAPILLARIES WITH APPLICATION TO THE DEVELOP. FOR OPTIC X-RAY
 09/23/1996 – 08/31/1998 FY98: \$0 Total: \$61,847
Prin. Invest.: W M GIBSON
Tech. Officer: MSFC/M K JOY, MSFC/C E WINKER
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 3357 STATE UNIV OF NEW YORK – ALBANY **7466**
PHYSICS AND CHEMISTRY OF NATURAL GLASSES
 02/09/1993 – 06/30/1997 FY98: \$0 Total: \$168,393
Prin. Invest.: J DELANO
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 – GEOLOGICAL SCIENCE

NAS 1 18942 STATE UNIV OF NEW YORK – ALBANY **7467**
SAGE III SCIENCE SUPPORT – P.I. – DR. V. MOHNEN
 01/31/1990 – 01/31/2005 FY98: \$50,000 Total: \$363,400
Prin. Invest.: V MOHNEN
Tech. Officer: LARC/G L MADDREA, LARC/L R MCMASTER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 2 5125 STATE UNIV OF NEW YORK – ALBANY **7468**
USE OF AN EXISTING AIRBORNE RADON DATA BASE IN THE VERIFICATION OF THE NASA/AEAP CORE MODEL
 04/14/1995 – 04/30/1998 FY98: \$0 Total: \$83,795
Prin. Invest.: M KRITZ
Tech. Officer: ARC/L PFISTER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 2 5212 STATE UNIV OF NEW YORK – ALBANY **7469**
REVIEW QUALITY ASSURANCE AND APPLICATION OF GLOBAL ATMOSPHERIC RADON DATA
 04/03/1997 – 05/31/1999 FY98: \$0 Total: \$39,998
Prin. Invest.: M KRITZ
Tech. Officer: ARC/L PFISTER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 5 283 STATE UNIV OF NEW YORK – ALBANY **7470**
PERIODIC, TRANSIENT, AND SPATIALLY INHOMOGENEOUS I NFLUENCES ONC EXCHANGE IN AMAZONIA
 06/23/1998 – 01/31/1999 FY98: \$380,589 Total: \$380,589
Prin. Invest.: D R FITZJARRALD
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 8 125 STATE UNIV OF NEW YORK – ALBANY **7471**
RESEARCH BRINGING GREATLY ENHANCED LAB-BASED PROTEIN CRYSTALLOGRAPHY TO THE US BIOTECHNOLOGY
 01/16/1997 – 01/14/1999 FY98: \$837,800 Total: \$1,659,863
Prin. Invest.: W M GIBSON
Tech. Officer: MSFC/K HIGGINBOTHAN
CASE Category: 59 – LIFE SCIENCE, OTHER

NGT 30340 STATE UNIV OF NEW YORK – ALBANY **7472**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/11/1995 – 05/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: D R FITZJARRALD
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 51239 STATE UNIV OF NEW YORK – ALBANY **7473**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/19/1994 – 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: A E KALOYEROS
Tech. Officer: LERC/F MONTEGANI
CASE Category: 13 – PHYSICS

NGT 5 30081 STATE UNIV OF NEW YORK – ALBANY **7474**
COMPARATIVE STUDY OF A VARIETY OF VEGETATION TYPES ATMOSPHERIC SURFACE AND PLANETARY BOUNDARY LAYER
 09/11/1997 – 08/31/1999 FY98: \$0 Total: \$22,000
Prin. Invest.: D R FITZJARRALD
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 3866 STATE UNIV OF NEW YORK – BINGHAMTON **7475**
MODELS FOR OPTICAL RADIATION REGIME IN VEGETATION STUDIES
 01/24/1997 – 09/30/1998 FY98: \$0 Total: \$80,513
Prin. Invest.: M GOEL
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 2699 STATE UNIV OF NEW YORK – BINGHAMTON **7476**
THERMAL INFRARED REMOTE SENSING AND BIOSPHERIC PROCESSES
 08/20/1991 – 08/31/1997 FY98: \$0 Total: \$190,093
Prin. Invest.: N S GOEL, J M NORMAN
Tech. Officer: HQ/G ASRAR, HQ/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 1 1122 STATE UNIV OF NEW YORK – BUFFALO **7477**
LARGE EDDY SIMULATORS AND DIRECT NUMERICAL SIMULATORS OF HIGH SPEED TURBULANT REACTING FLOWS
 04/19/1990 – 07/31/1999 FY98: \$31,751 Total: \$491,771
Prin. Invest.: P GIBI
Tech. Officer: LARC/J P DRUMMOND
CASE Category: 46 – MECHANICAL ENGR

NAG 1 1800 STATE UNIV OF NEW YORK - BUFFALO **7478**
DEVELOPMENT OF OPTIMAL CONVERGENCE STRATEGIES FOR DISTRIBUTED COMPLEX DESIGN
 01/26/1996 - 08/01/1998 FY98: \$18,954 Total: \$112,065
Prin. Invest.: C L BLOEBAUM
Tech. Officer: LARC/J L ROGERS, LARC/T A ZANG
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1620 STATE UNIV OF NEW YORK - BUFFALO **7479**
NONLINEAR BUBBLE INTERACTIONS IN ACOUSTIC PRESSURE FIELDS
 06/16/1994 - 09/22/1998 FY98: -\$67 Total: \$126,721
Prin. Invest.: J TSAMOPOULOS
Tech. Officer: LERC/B S SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1812 STATE UNIV OF NEW YORK - BUFFALO **7480**
AFFORDABLE HIGH PERFORMANCE COMPUTING: CHARACTERIZATION OF ATM-BASED WORKSTATION CLUSTERS
 03/13/1996 - 07/12/1998 FY98: \$31,144 Total: \$41,703
Prin. Invest.: P DOWD
Tech. Officer: LERC/D VAN DREI, LERC/I LOPEZ
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 2035 STATE UNIV OF NEW YORK - BUFFALO **7481**
NONLINEAR MICROMECHANICAL ANALYSIS OF WOVEN COMPOSITES BY BEM
 04/16/1997 - 10/31/1998 FY98: \$50,712 Total: \$125,766
Prin. Invest.: P K BANERJEE
Tech. Officer: LERC/D A HOPKINS
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 2273 STATE UNIV OF NEW YORK - BUFFALO **7482**
VOLCANO MONITORING FOR ERUPTION PREDICTION AND FOR ECASING USING THE GLOBAL POSITIONING SYSTEM
 05/26/1993 - 07/31/1998 FY98: \$0 Total: \$85,000
Prin. Invest.: BURSİK
Tech. Officer: GSFC/G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3142 STATE UNIV OF NEW YORK - BUFFALO **7483**
LANDSCAPE EVOLUTION, A COMPARISON OF FORM AND PROCESS
 11/09/1995 - 11/14/1998 FY98: \$68,189 Total: \$215,531
Prin. Invest.: M BARSİK
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4569 STATE UNIV OF NEW YORK - BUFFALO **7484**
CONSTRUCTION AND CAPABILITIES OF A ROVER-DEPLOYED PENETRATING RADAR
 07/23/1997 - 06/30/1999 FY98: \$28,620 Total: \$108,574
Prin. Invest.: D GRANT, III
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3937 STATE UNIV OF NEW YORK - BUFFALO **7485**
CARDIOPULMONARY HEMODYNAMICS IN MICROGRAVITY
 05/27/1994 - 05/31/1998 FY98: \$0 Total: \$661,404
Prin. Invest.: L E FARHI
Tech. Officer: HQ/F M SULZMAN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 1 52185 STATE UNIV OF NEW YORK - BUFFALO **7486**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/12/1998 - 05/30/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: K E LEWIS
Tech. Officer: LARC/J SOBIESKI
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 70006 STATE UNIV OF NEW YORK - BUFFALO **7487**
THERMAL & SHORT WAVELENGTH INFRARED MONITORING OF AT ACTIVE VOLCANOES ...STUDENT:
 09/05/1997 - 04/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: N J HERIDAN
Tech. Officer: GSFC/STOUTSENBERGER
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 1 1264 STATE UNIV OF NEW YORK - STONY BROOK **7488**
THE SURFACE RADIATION BUDGET AND CLOUD CLIMATE INTERACTIONS AS A PART OF CERES
 04/29/1991 - 10/31/1998 FY98: \$150,333 Total: \$827,209
Prin. Invest.: R H CESS
Tech. Officer: LARC/B A WIELICKI, LARC/J W YOUNGBLOOD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1838 STATE UNIV OF NEW YORK - STONY BROOK **7489**
TRAVEL SUPPORT FOR FIRST SPARC GENERAL ASSEMBLY IN MELBOURNE, AU, 12/96
 05/31/1996 - 05/30/1998 FY98: \$1 Total: \$32,601
Prin. Invest.: M J GELLER
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2040 STATE UNIV OF NEW YORK - STONY BROOK **7490**
SPARC DATA CENTER MY 1/3
 03/27/1998 - 12/31/1998 FY98: \$59,601 Total: \$59,601
Prin. Invest.: M J GELLER
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2065 STATE UNIV OF NEW YORK - STONY BROOK **7491**
OCEAN BUOY SHORTWAVE (OBS): A DATA SET FOR SATELLITE RETRIEVAL AND GCM VALIDATION
 05/01/1998 - 05/31/1999 FY98: \$61,429 Total: \$61,429
Prin. Invest.: R A WALISER
Tech. Officer: LARC/D S MCDOUGAL, LARC/J L RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1026 STATE UNIV OF NEW YORK - STONY BROOK **7492**
CELLULAR MECHANISMS OF SPACEFLIGHT SPECIFIC STRESS IN PLANTS
 03/05/1996 - 11/10/1998 FY98: \$174,657 Total: \$423,859
Prin. Invest.: A D KRİKORIAN
Tech. Officer: ARDC/M WINGET, ARC/G C JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 1594 STATE UNIV OF NEW YORK - STONY BROOK **7493**
GLOBAL ASPECTS OF LOW MASS STAR FORMATION IN THE ORION COMPLEX & LOW MASS STARS IN ASSOCIATION I.
 05/09/1991 - 05/31/1997 FY98: \$0 Total: \$189,878
Prin. Invest.: F M WALTER
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2739 STATE UNIV OF NEW YORK – STONY BROOK **7494**
TWO-D REPRESENTATION OF THREE-D MODELING OF ATMOSPHERIC EFFECTS OF AIRCRAFT
 09/27/1994 – 09/30/1998 FY98: \$0 Total: \$278,839
Prin. Invest.: M A GELLER
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2863 STATE UNIV OF NEW YORK – STONY BROOK **7495**
THE COMPOSITION, STRUCTURE AND EVOLUTION OF NEUTRON STARS
 01/06/1995 – 01/14/1999 FY98: \$45,000 Total: \$220,998
Prin. Invest.: J M LATTIMER
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 2936 STATE UNIV OF NEW YORK – STONY BROOK **7496**
THE STRUCTURE OF THE CORONAE OF PRE-MAIN SEQUENCE STARS
 05/08/1995 – 05/14/1997 FY98: \$0 Total: \$25,000
Prin. Invest.: F WALTER
Tech. Officer: GSFC/N WHITE
CASE Category: 12 – CHEMISTRY

NAG 5 2983 STATE UNIV OF NEW YORK – STONY BROOK **7497**
CHROMOSPHERIC DOPPLER IMAGING AND THE SEARCH FOR THE MAGNETIC CYCLE IN AR LACERT
 06/27/1995 – 06/30/1997 FY98: \$0 Total: \$83,117
Prin. Invest.: F M WALTER
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3135 STATE UNIV OF NEW YORK – STONY BROOK **7498**
CONSISTENCY STUDY OF THE ENHANCED SHORTWAVE CLOUD ABSORPTION USING GEBAR DATA
 11/03/1995 – 11/14/1998 FY98: \$40,000 Total: \$118,349
Prin. Invest.: M ZHANG
Tech. Officer: GSFC/M D CHOU
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3177 STATE UNIV OF NEW YORK – STONY BROOK **7499**
DYNAMICS AND TRANSPORT INVESTIGATIONS USING UARS DATA
 03/06/1996 – 03/14/1999 FY98: \$37,968 Total: \$256,000
Prin. Invest.: M A GELLER
Tech. Officer: GSFC/A R DOUGLASS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3261 STATE UNIV OF NEW YORK – STONY BROOK **7500**
THE GASEOUS CONTENT OF THE UNIVERSE AT $Z < 1.6$
 06/10/1996 – 04/30/1999 FY98: \$0 Total: \$77,000
Prin. Invest.: K M LANZETTA
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3297 STATE UNIV OF NEW YORK – STONY BROOK **7501**
GIANT MOLECULAR CLOUDS AND HIGH MASS STAR FORMATION IN THE MILKY WAY
 07/15/1996 – 10/31/1998 FY98: \$0 Total: \$229,000
Prin. Invest.: P M SOLOMON
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3718 STATE UNIV OF NEW YORK – STONY BROOK **7502**
LABORATORY SPECTROSCOPIC MEASUREMENTS RELEVANT TO RESEARCH
 01/24/1997 – 12/31/1998 FY98: \$65,353 Total: \$154,934
Prin. Invest.: D VARANABI
Tech. Officer: GSFC/D KURYLO
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3950 STATE UNIV OF NEW YORK – STONY BROOK **7503**
OPTIMIZATION OF A BIOCHEMICAL COUNTERMEASURE
 02/12/1997 – 02/14/1999 FY98: \$254,784 Total: \$503,239
Prin. Invest.: C T RUBIN
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 4043 STATE UNIV OF NEW YORK – STONY BROOK **7504**
CIO MEASUREMENTS AND ANALYSIS IN THE NETWORK FOR T STRATOSPHERIC CHANGE
 05/06/1997 – 12/31/1998 FY98: \$263,331 Total: \$557,829
Prin. Invest.: P SOLOMON
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4071 STATE UNIV OF NEW YORK – STONY BROOK **7505**
STRATOSPHERIC AND MESOSPHERIC TRACE GAS STUDIES USING MM-WAVE RECEIVERS
 03/21/1997 – 03/31/2000 FY98: \$200,591 Total: \$399,958
Prin. Invest.: R L DE ZAFRA
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4498 STATE UNIV OF NEW YORK – STONY BROOK **7506**
STUDY OF ENVIRONMENTS FOR PLANET FORMATION
 05/06/1997 – 07/31/1999 FY98: \$20,000 Total: \$40,000
Prin. Invest.: D J SIMON
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4640 STATE UNIV OF NEW YORK – STONY BROOK **7507**
THE STABILITY OF ORBITAL CONFIGURATIONS AND THE EVOLUTION OF PLANETARY AND SATELLITE SYSTEMS
 06/09/1997 – 03/31/2000 FY98: \$26,250 Total: \$71,250
Prin. Invest.: D J LISSAUER
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4792 STATE UNIV OF NEW YORK – STONY BROOK **7508**
A DEEP OBSERVATION OF A WELL-OBSERVED FIELD IN THE ULTRAVIOLET AND X-RAY EMISSION FROM PMS STARS: SPLITTING THE
 06/23/1997 – 06/30/1999 FY98: \$0 Total: \$16,500
Prin. Invest.: F M WALTER
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 4862 STATE UNIV OF NEW YORK – STONY BROOK **7509**
THE X-RAY SPECTRUM OF AN ISOLATED OLD NEUTRON STAR PHOTOMETRY OF AN ISOLATED NEUTRON STAR, AND CYCLO
 06/17/1997 – 05/31/1999 FY98: \$0 Total: \$19,300
Prin. Invest.: F M WALTER
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

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| NAG 5 4894 STATE UNIV OF NEW YORK - STONY BROOK 7510 SORPTION OF ORGANIC MOLECULES ON PYRITE 07/03/1997 - 11/30/1997 FY98: \$0 Total: \$45,001 Prin. Invest.: D A SCHOONEN Tech. Officer: GSFC/M MEYER CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) | NAG 5 7391 STATE UNIV OF NEW YORK - STONY BROOK 7518 THE SPECTRAL ENERGY DISTRIBUTION OF THE ISOLATED NEUTRON STARRXJ1856.5-3754 05/07/1998 - 05/14/1999 FY98: \$12,800 Total: \$12,800 Prin. Invest.: F M WALTER Prin. Invest.: NONE Tech. Officer: GSFC/R J OLIVERSEN CASE Category: 11 - ASTRONOMY |
| NAG 5 6007 STATE UNIV OF NEW YORK - STONY BROOK 7511 STUDIES OF EXCITED SPECIES IN PLANETARY UPPER ATMOSPHERE 07/23/1997 - 08/31/1998 FY98: \$0 Total: \$83,000 Prin. Invest.: D FOX Tech. Officer: GSFC/J BERGSTRALH CASE Category: 31 - ATMOSPHERIC SCIENCE | NAG 8 1227 STATE UNIV OF NEW YORK - STONY BROOK 7519 ORBITAL PROCESSING OF HIGH QUALITY CdTe COMPOUND SEMICONDUCTORS 03/13/1996 - 12/31/1997 FY98: \$0 Total: \$874,200 Prin. Invest.: D L ARSON, NONE Tech. Officer: GSFC/F REEVEWS CASE Category: 19 - PHYSICAL SCIENCE, OTHER |
| NAG 5 6408 STATE UNIV OF NEW YORK - STONY BROOK 7512 THE HOT CORONAE OF PRE-MAIN SEQUENCE STARS 10/10/1997 - 10/14/1998 FY98: \$32,560 Total: \$32,560 Prin. Invest.: F WALTER Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY | NAGW 1107 STATE UNIV OF NEW YORK - STONY BROOK 7520 DYNAMICAL PROBLEMS IN THE SOLAR SYSTEM 06/01/1987 - 09/10/1997 FY98: \$0 Total: \$525,851 Prin. Invest.: J L LISAUER Tech. Officer: HQ/J R UNDERWOOD, HQ/J M BOYCE CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 5 6544 STATE UNIV OF NEW YORK - STONY BROOK 7513 ORBITS OF SATURN'S INNER MOONS AND OTHER OBSERVATIONS CONNECTED WITH THE 1995-1996 SATURNIAN RING PL 10/24/1997 - 09/30/1998 FY98: \$47,000 Total: \$47,000 Prin. Invest.: D LISAUER, NONE Tech. Officer: GSFC/J BERGSTRALH CASE Category: 11 - ASTRONOMY | NAGW 1238 STATE UNIV OF NEW YORK - STONY BROOK 7521 LABORATORY SPECTROSCOPIC MEASUREMENTS 12/07/1987 - 06/30/1997 FY98: \$0 Total: \$717,681 Prin. Invest.: P V RANASI Tech. Officer: HQ/M J KURYLO, HQ/R T WATSON CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 6565 STATE UNIV OF NEW YORK - STONY BROOK 7514 COLLABORATIVE RESEARCH: MODELING OF N₂ AND CO₂ FI XATION BY THE OCEANIC DIAZOTROPH TRICHODESMIUM 11/03/1997 - 10/31/1998 FY98: \$47,303 Total: \$47,303 Prin. Invest.: E CARPENTER Tech. Officer: GSFC/G ASRAR CASE Category: 11 - ASTRONOMY | NAGW 1560 STATE UNIV OF NEW YORK - STONY BROOK 7522 TESTING & OPERATION OF A MILLIMETER WAVE CIO RECEIVES 04/26/1989 - 06/30/1997 FY98: \$0 Total: \$1,828,291 Prin. Invest.: P M SOLOMON Tech. Officer: HQ/M J KURYLO, HQ/R T WATSON CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NAG 5 6601 STATE UNIV OF NEW YORK - STONY BROOK 7515 DEVELOPMENT AND VALIDATION OF A TROPICAL ISOPRENE EMISSION MODEL 12/09/1997 - 06/30/1999 FY98: \$117,349 Total: \$117,349 Prin. Invest.: M LERDAU Tech. Officer: GSFC/D WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAGW 2182 STATE UNIV OF NEW YORK - STONY BROOK 7523 NAGW-2182/STATE UNIV NY/THE MEASUREMENT OF STRATOSPHERIC TRACE GASES BY MM-WAVE EMISSION SPECTROSCOPY 07/09/1990 - 12/31/1997 FY98: \$0 Total: \$1,334,636 Prin. Invest.: R DE ZAFRA Tech. Officer: HQ/M J KURYLO CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NAG 5 6879 STATE UNIV OF NEW YORK - STONY BROOK 7516 STUDIES OF EXCITED SPECIES IN PLANETARY UPPER ATMOSPHERES 01/30/1998 - 04/30/1999 FY98: \$83,500 Total: \$83,500 Prin. Invest.: J L FOX Tech. Officer: GSFC/R BEEBE CASE Category: 11 - ASTRONOMY | NAGW 2958 STATE UNIV OF NEW YORK - STONY BROOK 7524 STUDIES OF EXCITED SPECIES IN PLANETARY UPPER ATMOSPHERE 03/03/1992 - 06/30/1997 FY98: -\$738 Total: \$399,750 Prin. Invest.: J L FOX Tech. Officer: HQ/M L QUAIDE CASE Category: 11 - ASTRONOMY |
| NAG 5 7134 STATE UNIV OF NEW YORK - STONY BROOK 7517 UARS INVESTIGATIONS OF WAVE-COUPLING IN THE MIDDLE ATMOSPHERE 03/03/1998 - 02/14/1999 FY98: \$75,001 Total: \$75,001 Prin. Invest.: D A GELLER Tech. Officer: GSFC/A DOUGLASS CASE Category: 31 - ATMOSPHERIC SCIENCE | NAGW 4040 STATE UNIV OF NEW YORK - STONY BROOK 7525 THE STABILITY OF ORBITAL CONFIGURATIONS: THE ULTIMATE CONFIGURATION OF PLANETARY & SATELLITE SYSTEM 06/09/1994 - 09/30/1997 FY98: \$0 Total: \$135,320 Prin. Invest.: J LISAUER Tech. Officer: HQ/P ROGERS CASE Category: 11 - ASTRONOMY |

NAGW 4113 STATE UNIV OF NEW YORK – STONY BROOK **7526**
STUDY OF ENVIRONMENTS FOR PLANET FORMATION
 09/06/1994 – 07/31/1997 FY98: \$0 Total: \$39,997
Prin. Invest.: M SIMON
Tech. Officer: HQ/P ROGERS
CASE Category: 11 – ASTRONOMY

NAGW 4659 STATE UNIV OF NEW YORK – STONY BROOK **7527**
ORBITS OF SATURN'S INNER MOONS AND OTHER OBSERVATIONS CONNECTED WITH THE 1995–1996 SATURN RING CROSS
 07/28/1995 – 02/28/1998 FY98: \$0 Total: \$94,000
Prin. Invest.: J LISSAUER
Tech. Officer: HQ/E BARKER
CASE Category: 11 – ASTRONOMY

NAGW 5249 STATE UNIV OF NEW YORK – STONY BROOK **7528**
DEVELOPMENT AND VALIDATION OF A TROPICAL ISOPRENE EMISSION MODEL
 10/25/1996 – 03/31/1998 FY98: \$0 Total: \$140,518
Prin. Invest.: M T LERDAU
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG10 146 STATE UNIV OF NEW YORK – STONY BROOK **7529**
PLANT EMBRYOS AND FIDELITY OF CELL DIVISION
 09/30/1994 – 09/30/1997 FY98: \$0 Total: \$174,696
Prin. Invest.: A D DRIKORIAN
Tech. Officer: KSC/W M KNOTT
CASE Category: 55 – AGRICULTURE

NAS 5 31720 STATE UNIV OF NEW YORK – STONY BROOK **7530**
EOS INVESTIGATION GLOBAL HYDROLOGIC PROCESSES & CLIMATE
 08/21/1991 – 12/31/1997 FY98: \$0 Total: \$224,500
Prin. Invest.: M GELLER
Tech. Officer: GSFC/W LAU
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 2 5231 STATE UNIV OF NEW YORK – STONY BROOK **7531**
TIME-CRITICAL VOLUME RENDERING
 07/29/1997 – 07/31/1998 FY98: \$0 Total: \$20,000
Prin. Invest.: A KAUFMAN
Tech. Officer: ARC/M YAMASAKI
CASE Category: 22 – COMPUTER SCIENCE

NCC 5 126 STATE UNIV OF NEW YORK – STONY BROOK **7532**
INTERDISCIPLINARY GLOBAL CHANGE RESEARCH
 10/05/1995 – 02/14/1999 FY98: \$0 Total: \$324,251
Prin. Invest.: D GELLER
Tech. Officer: GSFC/M B CARLSON
CASE Category: 11 – ASTRONOMY

NCC 5 342 STATE UNIV OF NEW YORK – STONY BROOK **7533**
INTERDISCIPLINARY GLOBAL CHANGE RESEARCH
 06/23/1998 – 02/14/1999 FY98: \$93,643 Total: \$93,643
Prin. Invest.: M GELLER
Tech. Officer: GSFC/B CARLSON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 8 48 STATE UNIV OF NEW YORK – STONY BROOK **7534**
CRYSTAL RESEARCH
 06/17/1994 – 07/19/1997 FY98: \$0 Total: \$100,000
Prin. Invest.: M DUDLEY, D J LARSON
Tech. Officer: MSFC/D C GILLIES, MSFC/F R SZOFRAN
CASE Category: 13 – PHYSICS

NCC 8 53 STATE UNIV OF NEW YORK – STONY BROOK **7535**
CRYSTAL STUDIES
 07/15/1994 – 09/15/1997 FY98: \$0 Total: \$26,453
Prin. Invest.: M DUDLEY
Tech. Officer: MSFC/D C GILLIES, MSFC/C SU
CASE Category: 13 – PHYSICS

NCC 8 93 STATE UNIV OF NEW YORK – STONY BROOK **7536**
COMBINED SYNCHROTRON WHITE X-RAY TOPOGRAPHY & HIGH RESOLUTION TRIPLE AXIS X-RAY DIFFRACTION CHARACTERIZATION
 04/22/1996 – 03/31/2000 FY98: \$108,630 Total: \$266,960
Prin. Invest.: M DUDLEY, R J MATYI
Tech. Officer: MSFC/C TALLEY, MSFC/F R SZOFRAN
CASE Category: 13 – PHYSICS

NCC 8 100 STATE UNIV OF NEW YORK – STONY BROOK **7537**
RESEARCH ENTITLED "ORBITAL PROCESSING OF EUTECTICS
 06/13/1996 – 11/30/1998 FY98: \$217,250 Total: \$481,250
Prin. Invest.: D LARSON
Tech. Officer: MSFC/T TURNER
CASE Category: 49 – ENGINEERING, OTHER

NGT 5 30124 STATE UNIV OF NEW YORK – STONY BROOK **7538**
ENVIRONMENTAL CONTROLS OVER 2-METHYL-3-BUTEN-2-OL
 09/30/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: M LERDAU
Tech. Officer: GSFC/S ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6102 STATE UNIV OF NEW YORK COL – PLATTSBURGH **7539**
CARBON CHARACTERIZATION, ELEMENT ABUNDANCES AND X-RAY MEASUREMENTS ON AH84001
 07/25/1997 – 12/31/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: G J FLYNN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 2700 STATE UNIV OF NEW YORK COLLEGE – PURCHASE **7540**
IMPROVEMENT OF JET STREAM WIND ANALYSIS USING COMMERCIAL AIRCRAFT DATA
 08/24/1994 – 08/31/1998 FY98: \$23,000 Total: \$416,492
Prin. Invest.: J TENENBAUM
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3169 STATE UNIV OF NEW YORK COLLEGE – PURCHASE **7541**
DETERMINATION OF GOS ANALYSIS ERRORS NEAR STRONG JET STREAMS USING HIGH-RESOLUTION MODELS & AIRCRAFT
 04/15/1996 – 04/14/1999 FY98: \$70,000 Total: \$205,000
Prin. Invest.: J TENENBAUM
Tech. Officer: GSFC/H M HELFAND
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4157 STATE UNIV OF NEW YORK COLLEGE – PURCHASE **7542**
EVOLUTION OF VALLEY NETWORKS
 04/16/1997 – 02/28/1999 FY98: \$25,000 Total: \$43,585
Prin. Invest.: D GRANT, III
Tech. Officer: GSFC/P ROGER
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4691 STATE UNIV OF NEW YORK COLLEGE – PURCHASE **7543**
CARBON AND NITROGEN ABUNDANCES IN INTERPLANETARY TO PRE-BIOTIC ORGANIC MATTER ON EARTH
 06/26/1997 – 05/31/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: D J FLYNN
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 4843 STATE UNIV OF NEW YORK COLLEGE – PURCHASE **7544**
TRACE ELEMENT ABUNDANCE DETERMINATION OF COSMIC DUST
 06/27/1997 – 06/30/1999 FY98: \$13,333 Total: \$53,333
Prin. Invest.: D J FLYNN
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 7502 STATE UNIV OF NEW YORK COLLEGE – PURCHASE **7545**
ACQUISITION OF NEAR-TROPOPAUSE METEOROLOGICAL DATA FROM COMMERCIAL AIR-CRAFT
 06/02/1998 – 12/31/1998 FY98: \$54,000 Total: \$54,000
Prin. Invest.: J JENEBAUM
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4544 STATE UNIV OF NEW YORK COLLEGE, BUFFALO **7546**
PLANETARY GEOLOGY AND GEOPHYSICS UNDERGRADUATE RES
 05/13/1997 – 03/31/2000 FY98: \$78,922 Total: \$157,844
Prin. Invest.: D S KING
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 7579 STATE UNIV OF NEW YORK COLLEGE, BUFFALO **7547**
FUNDING FOR 'DEBRIS FLOW HAZARD ASSESSMENT, PICO DE ORIZABA, MEXICO' (SENH98-0089)
 08/04/1998 – 01/31/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: M F SHERIDAN
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 7581 STATE UNIV OF NEW YORK COLLEGE, BUFFALO **7548**
FUNDING FOR 'TEPHROSTRATIGRAPHIC AND SATELLITE IMAGERY ANALYSIS OF THE KAMCHATKA SHORELINE...' (SE
 08/04/1998 – 01/31/1999 FY98: \$25,000 Total: \$25,000
Prin. Invest.: M BURSİK
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 2259 STATE UNIV OF NEW YORK COLLEGE, BUFFALO **7549**
COMPARATIVE VOLCANOLOGIC STUDIES AND PPG UNDERGRADUATE RESEARCH PROGRAM
 12/14/1990 – 12/31/1996 FY98: -\$10,982 Total: \$493,808
Prin. Invest.: J S KING
Tech. Officer: HQ/T A MAXWELL
CASE Category: 32 – GEOLOGICAL SCIENCE

NGT 70410 STATE UNIV OF NEW YORK COLLEGE, BUFFALO **7550**
GRADUATE STUDENT RESEARCHERS (UMDF) PROGRAM
 07/13/1995 – 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: M F SHERIDAN
Tech. Officer: HQ/D K RUSSELL
CASE Category: 32 – GEOLOGICAL SCIENCE

NGT 8 52861 STATE UNIV OF NEW YORK COLLEGE, BUFFALO **7551**
ORIGIN OF CELLULAR PROCESSES ON EARTH
 07/27/1998 – 06/01/2000 FY98: \$22,000 Total: \$22,000
Prin. Invest.: G R WILSKY
Tech. Officer: MS/C/J F DOWDY
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 1 1797 SYRACUSE UNIVERSITY **7552**
CENTER FOR TRAINING AND RESEARCH IN HYPERSONICS
 01/24/1996 – 01/31/1999 FY98: \$0 Total: \$300,000
Prin. Invest.: J E L A GRAFF, E F SPINE
Tech. Officer: LAF/C/S MASSENBERG
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1084 SYRACUSE UNIVERSITY **7553**
MODELING & OPTIMIZATION OF DYNAMIC HOLOGRAPHIC PROCESS BACKTERIORHODOSPIN FILMS
 09/25/1996 – 09/14/1998 FY98: \$90,000 Total: \$200,000
Prin. Invest.: Q W SONG, R BIRGE
Tech. Officer: ARC/C K GARY
CASE Category: 9 – PHYSICAL SCIENCE, OTHER

NAG 3 1585 SYRACUSE UNIVERSITY **7554**
INVERSE METHOD FOR THE NASA LERC TURBOMACHINERY DESIGN ANALYSIS SYSTEM
 03/29/1994 – 07/14/1998 FY98: \$10,588 Total: \$196,342
Prin. Invest.: T Q L ANG
Tech. Officer: LERC/D P MILLER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 1853 SYRACUSE UNIVERSITY **7555**
BEHAVIOR OF RAPIDLY SHEARED BUBBLY SUSPENSIONS
 05/01/1996 – 04/30/2000 FY98: \$234,995 Total: \$490,436
Prin. Invest.: A S SANGANI, D L KOCH
Tech. Officer: LERC/H K NAHRA, LERC/B MOTIL
CASE Category: 43 – CHEMICAL ENGR

NAG 3 1982 SYRACUSE UNIVERSITY **7556**
WORKSHOP ON FUNDAMENTAL LAYER TRANSITION IN TURBOMACHINES
 11/07/1996 – 01/31/1998 FY98: -\$30 Total: \$5,970
Prin. Invest.: J E L A GRAFF
Tech. Officer: LERC/D E ASHPIS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2089 SYRACUSE UNIVERSITY **7557**
THREE-DIMENSIONAL VISCOUS INVERSE METHOD WITH ENDWALL EFFECTS
 03/17/1998 – 12/31/2001 FY98: \$49,073 Total: \$49,073
Prin. Invest.: T DANG
Tech. Officer: LERC/J R WOOD
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 4998 SYRACUSE UNIVERSITY **7558**
EXPERIMENTAL STUDIES OF HYDROGENATION AND OTHER RE UNDER
ASTROPHYSICALLY RELEVANT CONDITIONS
 07/21/1997 – 07/14/1998 FY98: \$0 Total: \$35,425
Prin. Invest.: G VIDALID
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 – ASTRONOMY

NAG 5 6822 SYRACUSE UNIVERSITY **7559**
STUDIES OF REACTIONS ON INTERSTELLAR GRAIN ANALOGUES IN A
UV-RICH ENVIRONMENT
 01/12/1998 – 12/31/1998 FY98: \$79,000 Total: \$79,000
Prin. Invest.: G VIDALI
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAGW 2932 SYRACUSE UNIVERSITY **7560**
HYDROGEN RECOMBINATION ON SURFACES OF INTERSTELLAR GRAIN ANALOGUES: A LABORATORY INVESTIGATION
 02/28/1992 – 07/20/1997 FY98: -\$16 Total: \$388,270
Prin. Invest.: G VIDALI
Tech. Officer: HQ/L CAROFF
CASE Category: 13 – PHYSICS

NGT 70380 SYRACUSE UNIVERSITY **7561**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 09/02/1994 – 06/30/1997 FY98: -\$2,381 Total: \$63,619
Prin. Invest.: T DENG
Tech. Officer: HQ/D K RUSSELL
CASE Category: 49 – ENGINEERING, OTHER

NGT 1 52169 SYRACUSE UNIVERSITY **7562**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/07/1997 – 06/30/1999 FY98: \$22,000 Total: \$32,000
Prin. Invest.: M A KEGERISE, E F SPINA
Tech. Officer: LARC/C B MCGINLEY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 975 UNIVERSITY OF ROCHESTER **7563**
DEVELOPMENT OF DETECTOR ARRAYS FOR LOW-BACKGROUND SPACE
ASTRONOMY
 06/17/1995 – 10/31/1998 FY98: \$0 Total: \$141,000
Prin. Invest.: W J FORREST, J L PIPHER
Tech. Officer: ARC/J H GOEBEL, ARC/C R MCCREIGHT
CASE Category: 45 – ELECTRICAL ENGR

NAG 2 1142 UNIVERSITY OF ROCHESTER **7564**
PROPOSAL FOR INFRARED SUBMILLIMETER, AND RADIO ASTRONOMY
 07/22/1997 – 12/31/1998 FY98: \$297,501 Total: \$648,501
Prin. Invest.: W J FORREST, J L PIPHER
Tech. Officer: ARC/C R MCCREIGHT, ARC/R E MCMURRAY
CASE Category: 13 – PHYSICS

NAG 5 3369 UNIVERSITY OF ROCHESTER **7565**
A SEARCH FOR BROWN DWARFS IN THE HAYDES
 08/28/1996 – 08/31/1999 FY98: \$77,000 Total: \$192,300
Prin. Invest.: W J FORREST
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4976 UNIVERSITY OF ROCHESTER **7566**
DEVELOPMENT OF GE:GA BLOCKED-IMPURITY-BAND DETECTOR FOR
ASTRONOMY
 07/10/1997 – 05/31/1999 FY98: \$95,833 Total: \$170,833
Prin. Invest.: D M WATSON
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 – ASTRONOMY

NAG 5 6119 UNIVERSITY OF ROCHESTER **7567**
SUNSPOT DYNAMICS
 08/08/1997 – 08/31/1999 FY98: \$14,633 Total: \$99,933
Prin. Invest.: D H THOMAS
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 6267 UNIVERSITY OF ROCHESTER **7568**
DEVELOPMENT OF LOW DARK CURRENT, HIGH QUANTUM EFFICIENCY
PASSIVELY COOLED SPACE EXPERIMENTS
 08/21/1997 – 06/30/2000 FY98: \$280,000 Total: \$501,000
Prin. Invest.: D L PIPHER
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 – ASTRONOMY

NAG 8 1382 UNIVERSITY OF ROCHESTER **7569**
RESEARCH "EX VIVO HEMOPOIESIS IN A THREE-DIMENSIONAL HUMAN
BONE CULTURE UNDER SIMULATED MICROGRAVITY
 06/10/1997 – 07/08/2000 FY98: \$91,000 Total: \$180,000
Prin. Invest.: D WU
Tech. Officer: MSFC/C TALLEY
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 2123 UNIVERSITY OF ROCHESTER **7570**
SUNSPOT DYNAMICS
 06/06/1990 – 08/31/1998 FY98: \$0 Total: \$481,900
Prin. Invest.: J H THOMAS
Tech. Officer: HQ/J D BOHLIN, HQ/S KANE
CASE Category: 13 – PHYSICS

NAGW 2356 UNIVERSITY OF ROCHESTER **7571**
CENTER FOR SPACE ENVIRONMENTAL HEALTH (CSEH)
 01/30/1991 – 10/31/1997 FY98: \$0 Total: \$5,095,557
Prin. Invest.: T W CLARKSON
Tech. Officer: HQ/R J WHITE
CASE Category: 59 – LIFE SCIENCE, OTHER

NCC 2 5149 UNIVERSITY OF ROCHESTER **7572**
COMPUTATIONAL MODELING OF SEMICONDUCTOR DYNAMICS AT FEMTOSECOND
TIME SCALES
 08/09/1995 – 08/31/1998 FY98: \$0 Total: \$76,590
Prin. Invest.: G AGRAWAL, NONE
Tech. Officer: ARC/P M GOORJIAN
CASE Category: 45 – ELECTRICAL ENGR

NAG 2 1033 YESHIVA UNIVERSITY **7573**
MULTIDISCIPLINARY STUDIES OF NEURAL PLASTICITY IN SPACE
 05/08/1996 – 06/30/1998 FY98: \$33,117 Total: \$245,769
Prin. Invest.: R S ZUKIN
Tech. Officer: ARC/M D ROSS, ARC/N G DAUNTON
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NORTH CAROLINA

NAG 5 3483 BENNETT COLLEGE **7574**
MATHEMATICS, SCIENCE AND TECHNOLOGY AWARDS FOR TEACHMENT PROGRAM

12/04/1996 - 06/30/1998 FY98: \$0 Total: \$288,152
 Prin. Invest.: D OLIVER
 Tech. Officer: GSFC/M MATEU
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4980 BENNETT COLLEGE **7575**
PRECOLLEGE AWARDS FOR EXCELLENCE IN MATHEMATICS, SCIENCE & TECHNOLOGY (PACE)

07/07/1997 - 05/31/1998 FY98: \$0 Total: \$95,100
 Prin. Invest.: M COTTON
 Tech. Officer: GSFC/M STOUTSENBERGER
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4531 BENNETT COLLEGE **7576**
SCHOLARS FOR EXCELLENCE IN MATHEMATICS, SCIENCE, ENGINEERING AND TECHNOLOGY

05/18/1995 - 05/30/1997 FY98: \$0 Total: \$192,700
 Prin. Invest.: J MCCRARY
 Tech. Officer: HQ/B L WHITE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4634 BENNETT COLLEGE **7577**
MATHEMATICS, SCIENCE & TECHNOLOGY AWARDS FOR TEACHER & CURRICULUM ENHANCEMENT PROGRAM (MASTAP)

07/31/1995 - 06/30/1998 FY98: \$0 Total: \$161,848
 Prin. Invest.: D OLIVER
 Tech. Officer: HQ/B WHITE
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1569 DUKE UNIVERSITY **7578**
EXPERIMENTAL AND THEORETICAL AEROELASTIC STUDY OF A WING AND CONTROL-SURFACE WITH FREE PLAY

02/02/1994 - 01/31/1999 FY98: \$4,167 Total: \$100,034
 Prin. Invest.: E H DOWELL
 Tech. Officer: LARC/S R COLE
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1002 DUKE UNIVERSITY **7579**
EXPRESSION OF CONTRACTILE PROTEIN ISOFORMS IN MICROGRAVITY

08/25/1995 - 06/30/1999 FY98: \$32,420 Total: \$143,646
 Prin. Invest.: P ANDERSON
 Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1433 DUKE UNIVERSITY **7580**
AEROACOUSTIC SENSITIVITY ANALYSIS & OPTIMAL AEROACOUSTIC DESIGN OF TURBOMACHINERY BLADES

01/15/1993 - 07/31/1998 FY98: \$31,737 Total: \$303,395
 Prin. Invest.: K HALL
 Tech. Officer: LERC/D HOYNIK, LERC/D L HUFF
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1838 DUKE UNIVERSITY **7581**
DENSITY EQUILIBRATION IN FLUIDS NEAR THE LIQUID-VAPOR CRITICAL POINT

04/22/1996 - 04/01/2000 FY98: \$67,000 Total: \$205,000
 Prin. Invest.: H MEYER
 Tech. Officer: LERC/B S SINGH
 CASE Category: 13 - PHYSICS

NAG 3 1917 DUKE UNIVERSITY **7582**
DYNAMICS OF GRANULAR MATERIAL

07/15/1996 - 07/05/2000 FY98: \$120,000 Total: \$292,000
 Prin. Invest.: R B SHRINGER
 Tech. Officer: LERC/E NELSON
 CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 3665 DUKE UNIVERSITY **7583**
A STUDY OF CARBON MONOXIDE USING TRACE CONSTITUENT DATA ASSIMILATION: A NEW APPROACH IN GLOBAL ...

01/15/1997 - 12/11/1998 FY98: \$250,507 Total: \$467,422
 Prin. Invest.: P K ASIBHATLA
 Tech. Officer: GSFC/R ROOD
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4491 DUKE UNIVERSITY **7584**
FACTORS AFFECTING DECOMPRESSION SICKNESS IN ASTRONAUTIC EXTRAVEHICULAR ACTIVITY

04/30/1997 - 11/10/1998 FY98: \$0 Total: \$89,986
 Prin. Invest.: R D VANN
 Tech. Officer: GSFC/V SCHNEIDER
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 5148 DUKE UNIVERSITY **7585**
MONITORING THE EFFECTS OF FIRES IN BOREAL FORESTS USING IMAGING RADARS

07/11/1997 - 10/31/1998 FY98: \$0 Total: \$60,136
 Prin. Invest.: E K ASISCHKE
 Tech. Officer: GSFC/D WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6482 DUKE UNIVERSITY **7586**
CENTER OF EXCELLENCE IN REMOTE SENSING FOR INTEGRATED LANDSCAPE CHANGE

11/18/1997 - 03/31/1999 FY98: \$210,000 Total: \$210,000
 Prin. Invest.: P N HALPIN
 Tech. Officer: GSFC/M WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6988 DUKE UNIVERSITY **7587**
REPRESENTING KEY PHYTOPLANKTON GROUPS IN OCEAN CARBON CYCLE MODEL

02/20/1998 - 02/14/2000 FY98: \$48,793 Total: \$48,793
 Prin. Invest.: R T BARBER
 Tech. Officer: GSFC/J CAMPBELL
 CASE Category: 33 - OCEANOGRAPHY

NAG 5 7155 DUKE UNIVERSITY **7588**
REQUEST FOR PARTIAL SUPPORT FOR THE WORKSHOP ON INVERSE MODELING OF GLOBAL BIOGEOCHEMICAL CYCLE

03/03/1998 - 02/28/1999 FY98: \$18,900 Total: \$18,900
 Prin. Invest.: P K ASIBHATLA
 Tech. Officer: GSFC/J A KAYE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

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| NAG 8 966 DUKE UNIVERSITY 7589 CRYSTALLIZATION OF SOLUTION PROPERTIES OF REDESIGN ED PROTEIN SUFACES 08/10/1993 – 12/31/1998 FY98: \$0 Total: \$215,739 <i>Prin. Invest.:</i> D C RICHARDSON <i>Tech. Officer:</i> MSFC/D CARTER CASE Category: 19 – PHYSICAL SCIENCE, OTHER | NGT 30253 DUKE UNIVERSITY 7597 GLOBAL CHANGE FELLOWSHIP PROGRAM 10/02/1994 – 08/31/1998 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> N L CHRISTENSEN JR. <i>Tech. Officer:</i> HQ/A C JANETOS, HQ/G ASRAR CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NAG 9 810 DUKE UNIVERSITY 7590 SKELETAL MUSCLE DEVELOPMENT & DIFFERENTIATION IN V ITRO BY MECHANICAL & CHEMICAL FACTORS 09/13/1995 – 09/02/1999 FY98: \$144,000 Total: \$590,758 <i>Prin. Invest.:</i> W E KRAUS <i>Tech. Officer:</i> JSC/N PELLIS CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR) | NGT 30301 DUKE UNIVERSITY 7598 GLOBAL CHANGE FELLOWSHIP PROGRAM 08/08/1995 – 08/31/1998 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> W H SCHLESINGER <i>Tech. Officer:</i> HQ/A C JANETOS, HQ/G ASRAR CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NAG 9 939 DUKE UNIVERSITY 7591 EXPERIMENTAL TRIALS TO TEST OXYGEN PREBREATHE PRO TOCOLS FOR SPACE STATION CONSTRUCTION 04/15/1997 – 04/15/1999 FY98: \$60,000 Total: \$195,000 <i>Prin. Invest.:</i> R VANN <i>Tech. Officer:</i> JSC/M POWELL CASE Category: 56 – MEDICL | NGT 30302 DUKE UNIVERSITY 7599 GLOBAL CHANGE FELLOWSHIP PROGRAM 08/08/1995 – 08/31/1998 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> W H SCHLESINGER <i>Tech. Officer:</i> HQ/A C JANETOS, HQ/G ASRAR CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NAGW 4417 DUKE UNIVERSITY 7592 FACTORS AFFECTING DCS IN ASTRONAUTS DURING EVA 04/21/1995 – 09/30/1997 FY98: \$0 Total: \$188,251 <i>Prin. Invest.:</i> R D VANN <i>Tech. Officer:</i> HQ/F SULZMAN CASE Category: 59 – LIFE SCIENCE, OTHER | NGT 30305 DUKE UNIVERSITY 7600 GLOBAL CHANGE FELLOWSHIP PROGRAM 08/16/1995 – 08/31/1997 FY98: -\$1,662 Total: \$42,338 <i>Prin. Invest.:</i> R RICHTER <i>Tech. Officer:</i> HQ/A C JANETOS, HQ/G ASRAR CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NAGW 4483 DUKE UNIVERSITY 7593 MONITORING THE EFFECTS OF FIRE IN BOREAL FORESTS U SING IMAG- ING RADARS 05/13/1995 – 05/31/1998 FY98: \$0 Total: \$120,009 <i>Prin. Invest.:</i> E KASISOHKE, N L CHRISTENSEN, NONE <i>Tech. Officer:</i> HQ/D E WICKLAND, HQ/A C JANETOS CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NGT 30333 DUKE UNIVERSITY 7601 GLOBAL CHANGE FELLOWSHIP PROGRAM 08/16/1995 – 08/31/1998 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> B STRAIN <i>Tech. Officer:</i> HQ/D E WICKLAND, HQ/G ASRAR CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NCC 1 250 DUKE UNIVERSITY 7594 ACTIVE CONTROL STRATEGIES AND TRANSDUCTION DEVICE FOR INTERIOR_NOISE CONTROL 02/06/1997 – 12/31/1997 FY98: \$90,626 Total: \$193,751 <i>Prin. Invest.:</i> R L CLARK <i>Tech. Officer:</i> LARC/D E COX CASE Category: 46 – MECHANICAL ENGR | NGT 51310 DUKE UNIVERSITY 7602 GRADUATE STUDENT RESEARCHERS PROGRAM 07/29/1994 – 06/30/1997 FY98: -\$1 Total: \$65,999 <i>Prin. Invest.:</i> D B BLISS <i>Tech. Officer:</i> ARC/M MOORE CASE Category: 46 – MECHANICAL ENGR |
| NCC 5 233 DUKE UNIVERSITY 7595 A GROUND-TRUTHING PROGRAM IN SUPPORT OF THE VEGETA MISSION. 09/03/1997 – 08/31/1999 FY98: \$0 Total: \$39,437 <i>Prin. Invest.:</i> D L URBAN <i>Tech. Officer:</i> GSFC/R KNOX CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NGT 2 52236 DUKE UNIVERSITY 7603 UTILIZATION OF KNOW PHYLOGENIES FOR ASSESSING & IM PROVING RECONSTRUCTION OF THE HISTORY OF LIFE.... 09/23/1997 – 07/31/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> C CUNNINGHAM <i>Tech. Officer:</i> ARC/K W CULLINGS, ARC/M L FONDA CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR) |
| NCC 9 42 DUKE UNIVERSITY 7596 BIOPHYSICAL, MATHEMATICAL MODELS OF GAS FORMATION 09/25/1995 – 10/01/1998 FY98: \$35,480 Total: \$103,130 <i>Prin. Invest.:</i> W GERTH <i>Tech. Officer:</i> JSC/M POWELL CASE Category: 54 – ENVIRONMENTAL BIOLOGY | NGT 2 52248 DUKE UNIVERSITY 7604 A NEW APPROACH TO LARGE-SCALE PROBABILISTIC PLANNI NG 08/25/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> M L LITTMAN <i>Tech. Officer:</i> ARC/K P GOLDEN CASE Category: 22 – COMPUTER SCIENCE |

NGT 5 69 DUKE UNIVERSITY **7605**
A REGIONAL ASSESSMENT OF THE RATE AND DIRECTION OF CHANGE IN
SOIL ORGANIC CARBON POOLS DUE TO LAND
 05/28/1998 – 09/14/1999 FY98: \$18,100 Total: \$18,100
Prin. Invest.: D URBAN
Tech. Officer: GSFC/M S BURRELL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 50159 DUKE UNIVERSITY **7612**
IMPLICATIONS OF LAND-USE LEGACIES IN DUKE FOREST: ASSESSING
CHANGES IN LAND COVER, FOREST PRODUCTIVI
 10/02/1997 – 10/01/1998 FY98: \$21,077 Total: \$21,077
Prin. Invest.: D URBAN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30055 DUKE UNIVERSITY **7606**
THIRD YEAR FUNDING: "FOREST SOILS AS A SINK FOR A INTERACTIONS
BETWEEN ELEVATED CO2 AND FOREST GROW
 09/11/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: W H SCHLESINGER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50224 DUKE UNIVERSITY **7613**
VARYING EOLIAN DUST INPUTS AND SPATIOTEMPORAL PATTERNS OF
CHANGE ON CARIBBEAN CORAL REEFS
 09/29/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R T EARBERRY, M HAYES
Tech. Officer: HQ/A NURRIDIN
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 30057 DUKE UNIVERSITY **7607**
"EFFECTS OF PLANT CO2 RESPONSE ON SOIL FERTILITY: FACTORS CON-
TROLLING CARBON STORAGE IN THE BIOSPHER
 09/06/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: W H SCHLESINGER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 8 52842 DUKE UNIVERSITY **7614**
GRADUATE STUDENT RESEARCH PROGRAM
 07/30/1997 – 05/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: L N V RGIN
Tech. Officer: MSF J/DOWDY
CASE Category: 43 – MECHANICAL ENGR

NGT 5 30065 DUKE UNIVERSITY **7608**
GLOBAL CHANGE FELLOWSHIP PROGRAM: THE GROWTH RESP TREE
SPECIES TO ELEVATED CO2 AND REDUCED SOIL MOI
 09/09/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: B STRAIN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 4924 EAST CAROLINA UNIVERSITY **7615**
MONITORING THE EFFECTS OF FIRES IN BOREAL FORESTS
 06/25/1997 – 09/30/1998 FY98: \$0 Total: \$24,674
Prin. Invest.: Y WATKINS
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 31 – ENVIRONMENTAL SCI, OTHER

NGT 5 30105 DUKE UNIVERSITY **7609**
EFFECTS OF PLANT-SOIL INTERACTIONS ON CARBON STORAGE IN A
CHESAPEAKE BAY MARSH: DOES ELEVATED CO2I
 10/24/1997 – 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: D REYNOLDS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 4505 EAST CAROLINA UNIVERSITY **7616**
MONITORING THE EFFECTS OF FIRES IN THE BOREAL FORESTS
 05/31/1995 – 09/30/1997 FY98: \$0 Total: \$50,452
Prin. Invest.: Y WATKINS, E KASISCHKE
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 31 – ENVIRONMENTAL SCI, OTHER

NGT 5 30107 DUKE UNIVERSITY **7610**
THIRD YEAR: "SOIL CARBON DIOXIDE AND WATER RELATIONS IN THE
BOREAL FOREST: LINKING MOISTURE
 12/04/1997 – 08/31/1998 FY98: \$22,000 Total: \$22,000
Prin. Invest.: D RICHTER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 3 2150 ELIZABETH CITY STATE UNIVERSITY **7617**
CONTROLLING CHAOS IN JOSEPHSON JUNCTION CONTROLLING CHAOS
IN JOSEPHSON JUNCTION
 04/07/1998 – 05/31/2001 FY98: \$56,457 Total: \$56,457
Prin. Invest.: D SEN GUPTA, S K KANA, K D EDOH
Tech. Officer: LERC M ANDRO, LERC/E J PETRIK
CASE Category: 21 – MATHEMATICS

NGT 5 30117 DUKE UNIVERSITY **7611**
THE EFFECTS OF WILDFIRE ON CARBON CYCLING IN SOILS OF INTERIOR
ALASKA ESSF RECIPIENT: KATHERINE O'NE
 10/01/1997 – 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: D RICHTER
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6814 ELIZABETH CITY STATE UNIVERSITY **7618**
DR. C.D. TURNAGE: PRE-COLLEGE AWARDS FOR EXCELLENCE IN MATH-
EMATICS, SCIENCE, ENGINEERING AND TECHNOL
 01/05/1998 – 11/30/1998 FY98: \$100,000 Total: \$100,000
Prin. Invest.: S SACHIDEV
Tech. Officer: GSFC STOUTSENBERGER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 5172 ELIZABETH CITY STATE UNIVERSITY **7619**
DR. C. D. TURNAGE: PACE/MSET PROGRAM
 11/22/1996 – 11/30/1997 FY98: \$0 Total: \$100,000
Prin. Invest.: S SACHIDEV
Tech. Officer: HQ/B WHITE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG10 252 ELIZABETH CITY STATE UNIVERSITY **7620**
PROVIDE RESEARCH EXPERIENCES FOR SOCIALLY AND ECONOMICALLY DISADVANTAGED STUDENTS
 08/12/1998 – 07/31/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: E LAWRENCE
Tech. Officer: KSC/R MC KINNEY
CASE Category: 49 – ENGINEERING, OTHER

NCC 5 121 ELIZABETH CITY STATE UNIVERSITY **7621**
REGIONAL NETWORK RESOURCES AND TRAINING SITE AT ECSU
 08/15/1995 – 08/14/1999 FY98: \$133,000 Total: \$1,683,000
Prin. Invest.: L HAYDEN
Tech. Officer: GSFC/J BENNETT
CASE Category: 22 – COMPUTER SCIENCE

NAG 1 1928 FAYETTEVILLE STATE UNIVERSITY **7622**
PRESERVICE/INSERVICE/MODEL FOR TEACHING INTEGRATED MATH/SCIENCE WITH TECHNOLOGY (TIMS/T)
 05/20/1997 – 05/31/1999 FY98: \$302,128 Total: \$662,128
Prin. Invest.: L EDWARD, JR.
Tech. Officer: LARC/S CANRIGHT, LARC/E PRIOR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 3 2072 FAYETTEVILLE STATE UNIVERSITY **7623**
GENERATING ELECTRONIC MATERIALS (GEM) FOR TEACHING /LEARNING MATHEMATIC AND SCIENCE TEACHER TRAINING
 07/28/1997 – 06/30/1999 FY98: \$40,000 Total: \$67,000
Prin. Invest.: L EDWARDS
Tech. Officer: LERC/R F LAWRENCE
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAG 5 6095 FAYETTEVILLE STATE UNIVERSITY **7624**
PACE/MSET AWARD
 09/10/1997 – 08/31/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: L EDWARDS
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 996 FAYETTEVILLE STATE UNIVERSITY **7625**
JOVE
 11/19/1993 – 08/31/1998 FY98: \$0 Total: \$69,494
Prin. Invest.: J WU
Tech. Officer: MSFC/F SIX
CASE Category: 13 – PHYSICS

NGT 5 90055 FAYETTEVILLE STATE UNIVERSITY **7626**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 03/13/1997 – 08/14/1998 FY98: \$0 Total: \$84,325
Prin. Invest.: L EDWARDS
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 22 – COMPUTER SCIENCE

NGT 5 90071 FAYETTEVILLE STATE UNIVERSITY **7627**
NASA TECHNOLOGY INSTITUTE (FORMERLY GRAPHING CALCULUS)
 05/22/1997 – 03/31/1999 FY98: \$99,609 Total: \$186,462
Prin. Invest.: L EDWARDS
Tech. Officer: GSFC/L RANDOLPH
CASE Category: 21 – MATHEMATICS

NAG 3 2022 JOHNSON C. SMITH UNIVERSITY **7628**
CONSERVATION/SOLUTION METHOD (STE) FOR LINEAR POTENTIAL FLOW PROBLEMS
 03/10/1997 – 03/09/1999 FY98: -\$33,312 Total: \$66,624
Prin. Invest.: J O ADEYEYE
Tech. Officer: LERC/J R SCOTT
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAG 1 956 NORTH CAROLINA A&T STATE UNIVERSITY **7629**
A SPACE TECHNOLOGY DEVELOPMENT AND UTILIZATION PROGRAM
 01/13/1989 – 05/31/1999 FY98: \$135,000 Total: \$6,269,124
Prin. Invest.: L SHARPE, A HOMAI FAR, A CHOWDHURY
Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 1 1454 NORTH CAROLINA A&T STATE UNIVERSITY **7630**
DEVELOPMENT OF PREDICTIVE MODELS USING REMOTELY SENSED DATA FOR SIMULATING DAMAGE POTENTIALS TO NA
 09/18/1992 – 12/31/1996 FY98: -\$10,386 Total: \$343,072
Prin. Invest.: G A UZOCHUKWU, E U NZEWI, G A GAYLE
Tech. Officer: LARC/R L YANG, GSFC/E LEVINE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 1 1604 NORTH CAROLINA A&T STATE UNIVERSITY **7631**
ASSESSMENT OF LARGE DEFORMATION IN MULTIPLE DELAMINATED COMPOSITE LAMINATES SUBJECTED TO A TRANSVERSE
 02/01/1994 – 01/31/1997 FY98: -\$4,353 Total: \$210,453
Prin. Invest.: K N SHIVAKUMAR, V S AVVA, R L SADLER
Tech. Officer: LARC/C C POE JR., LARC/W C JACKSON
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 1 1754 NORTH CAROLINA A&T STATE UNIVERSITY **7632**
THREE-DIMENSIONAL GEOMETRIC NONLINEAR CONTACT STRESS ANALYSIS OF A TWO-RIVET LAP JOINT
 09/18/1995 – 09/17/1998 FY98: \$45,000 Total: \$140,894
Prin. Invest.: K N SHIVAKUMAR
Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU
CASE Category: 46 – MECHANICAL ENGR

NAG 1 1874 NORTH CAROLINA A&T STATE UNIVERSITY **7633**
PHENYLETHYNYL CONTAINING POLYARYLENE ETHERS/ POLYIMIDES RESIN INFILTRATION OF COMPOSITES
 09/27/1996 – 09/30/1999 FY98: \$17,000 Total: \$217,000
Prin. Invest.: D O DUNN
Tech. Officer: LARC/B J JENSEN
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 1 1956 NORTH CAROLINA A&T STATE UNIVERSITY **7634**
APPROACHES TO DESIGN AND EVALUATION OF SANDWICH COMPOSITES.NLPN 97-514
 07/10/1997 – 05/31/2000 FY98: \$55,000 Total: \$95,000
Prin. Invest.: K N SHIVAKUMAR
Tech. Officer: LARC/I S RAJU, LARC/C C POE
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 2 1150 NORTH CAROLINA A&T STATE UNIVERSITY **7635**
MOTION PLANNING IN A SOCIETY OF INTELLIGENT MOBILE AGENTS
 08/22/1997 – 12/14/1998 FY98: \$44,600 Total: \$176,868
Prin. Invest.: A C ESTERLINE
Tech. Officer: ARC/G S LEE
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAG 3 1432 NORTH CAROLINA A&T STATE UNIVERSITY **7636**
GRAPHITE FIBER TEXTILE PREFORM/COPPER MATRIX COMPO SITE
 12/30/1992 - 03/31/1997 FY98: -\$1,754 Total: \$472,248
Prin. Invest.: G J FILATOV, R L SADLER
Tech. Officer: LERC/R V MINER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1452 NORTH CAROLINA A&T STATE UNIVERSITY **7637**
DEVELOPMENT OF PROCESSING, FABRICATION & EVALUATION OF GRAPHITE FIBER-REINFORCED POLYIMIDE TUBES
 02/08/1993 - 12/31/1996 FY98: -\$337 Total: \$364,417
Prin. Invest.: V S AVVA, R L SADLER
Tech. Officer: LERC/R D VANNUCCI
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1734 NORTH CAROLINA A&T STATE UNIVERSITY **7638**
COMPUTATIONAL ASSESSMENT OF FAN BY-PASS SYSTEM DESIGN ADVANCED DUCT PROPULSORS
 04/01/1995 - 09/30/1999 FY98: \$96,709 Total: \$240,682
Prin. Invest.: S CHANDRA, F FERGUSON, R KRISHNAMURTHY
Tech. Officer: LERC/K J KACYNSKI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1835 NORTH CAROLINA A&T STATE UNIVERSITY **7639**
ROBUST, BRILLOUIN ACTIVE EMBEDDED FIBER-IN-THE-SENSOR SYSTEM IN SMART COMPOSITE
 04/22/1996 - 05/08/1999 FY98: \$118,527 Total: \$283,936
Prin. Invest.: D YU
Tech. Officer: LERC/E B CLARK
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2055 NORTH CAROLINA A&T STATE UNIVERSITY **7640**
FEASIBILITY INVESTIGATION ON THE DEVELOPMENT OF A STRUCTURAL DAMAGE DIAGNOSTIC AND MONITORING
 07/01/1997 - 06/30/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: J Y SHEN, C SHARPE
Tech. Officer: LERC/D F NOGA, LERC/A L JANKOVSKY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2165 NORTH CAROLINA A&T STATE UNIVERSITY **7641**
DEVELOPMENT OF A STRUCTURAL DAMAGE DIAGNOSTIC AND MONITORING SYSTEM FOR ROCKET ENGINES PHASE I: DAMA
 06/11/1998 - 05/03/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: Y ELLEN, L SHARPE
Tech. Officer: LERC/D F NOGA, LERC/A L JANKOVSKY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 4 118 NORTH CAROLINA A&T STATE UNIVERSITY **7642**
MULTIDISCIPLINARY MODELING & SIMULATION OF AEROSPACE VEHICLE SYSTEMS
 03/27/1997 - 09/30/1999 FY98: \$12,138 Total: \$99,998
Prin. Invest.: M HUMAN
Tech. Officer: DFRC/K K GUPTA, DFRC/L S VOELKER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 131 NORTH CAROLINA A&T STATE UNIVERSITY **7643**
ARTIFICIAL POTENTIAL FIELD BASED MOTION PLANNING/ NAVIGATION IN 2 & 3 DIMENSIONAL DYNAMIC ENVIRON.
 06/06/1997 - 06/06/1999 FY98: \$88,108 Total: \$265,016
Prin. Invest.: A V HOMAFAR, NONE
Tech. Officer: DFRC/K K GUPTA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 132 NORTH CAROLINA A&T STATE UNIVERSITY **7644**
HYBRID MOTION PLANNING WITH MULTIPLE DESTINATIONS NEW AWARD
 06/10/1997 - 06/30/1999 FY98: \$91,292 Total: \$182,294
Prin. Invest.: J C OUSE, NONE
Tech. Officer: DFRC/K K GUPTA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 152 NORTH CAROLINA A&T STATE UNIVERSITY **7645**
INVESTIGATION OF AERO SERVO STRUCTURAL INTERACTION IN AEROSPACE APPLICATIONS
 03/23/1998 - 03/31/2001 FY98: \$100,000 Total: \$100,000
Prin. Invest.: S CHANDRA
Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3110 NORTH CAROLINA A&T STATE UNIVERSITY **7646**
DYNAMICS OF MASS TRANSFER IN CLOSE INTERACTING BINARIES
 10/12/1995 - 10/31/1998 FY98: \$15,500 Total: \$46,500
Prin. Invest.: J M BLONDIN
Tech. Officer: GS/C/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4102 NORTH CAROLINA A&T STATE UNIVERSITY **7647**
FORMAL FOUNDATIONS OF AGENTS
 03/31/1997 - 11/30/1998 FY98: \$100,000 Total: \$199,688
Prin. Invest.: A ESTERLINE
Tech. Officer: GS/C/W TRUSZKOWSKI
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 7158 NORTH CAROLINA A&T STATE UNIVERSITY **7648**
SELF-TIMED SYNCHRONOUS DIGITAL SYSTEM DESIGN
 03/11/1998 - 05/31/1999 FY98: \$99,553 Total: \$99,553
Prin. Invest.: A WALKER
Tech. Officer: GS/C/P CORONADO
CASE Category: 45 - ELECTRICAL ENGR

NAG 8 1142 NORTH CAROLINA A&T STATE UNIVERSITY **7649**
ROCKET ENGINE STUDY
 05/15/1995 - 12/31/1998 FY98: \$0 Total: \$69,729
Prin. Invest.: K J KINES
Tech. Officer: MS/C/J RUF
CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1247 NORTH CAROLINA A&T STATE UNIVERSITY **7650**
DEVELOPMENT & TESTING OF A VIBROMETRY TECHNIQUE FOR HEALTH MONITORING OF COMPOSITE MATERIAL STRUCTURES
 10/31/1996 - 10/31/1999 FY98: \$93,684 Total: \$191,723
Prin. Invest.: D J SCHULZ
Tech. Officer: MS/C/C WILKERSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1396 NORTH CAROLINA A&T STATE UNIVERSITY **7651**
R/S "SOLUTION POLYMERIZATION OF THERMOSETS IN 1-G AND MICROGRAVITY ENVIRONMENT"
 08/28/1997 - 12/31/1999 FY98: \$96,048 Total: \$193,746
Prin. Invest.: A P KENNEDY
Tech. Officer: MS/C/B PENN
CASE Category: 12 - CHEMISTRY

NAG 9 973 NORTH CAROLINA A&T STATE UNIVERSITY **7652**
INTELLIGENT AGENTS-BASED SCHEDULING
 09/25/1997 – 12/31/1999 FY98: \$22,200 Total: \$92,235
Prin. Invest.: B RAM
Tech. Officer: JSC/J D ERICK SUN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG10 201 NORTH CAROLINA A&T STATE UNIVERSITY **7653**
CLEANING OF CONTAMINATED SUBSTRATES
 10/23/1996 – 10/23/1999 FY98: \$97,683 Total: \$284,083
Prin. Invest.: G WHITE
Tech. Officer: KSC/G ALLEN
CASE Category: 43 – CHEMICAL ENGR

NAS 1 19157 NORTH CAROLINA A&T STATE UNIVERSITY **7654**
EXPERIMENTAL, DEVELOPMENTAL AND BASIC AND APPLIED RESEARCH
 08/03/1990 – 08/02/1998 FY98: \$81,529 Total: \$4,736,393
Prin. Invest.: L SHARPE
Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAS 3 96055 NORTH CAROLINA A&T STATE UNIVERSITY **7655**
NEW MECHANISTIC CONSTITUTIVE MODEL FOR HIGH TEMPERATURE
CMCS UNDER MONOTONIC CYCLIC LOADING
 11/05/1996 – 01/31/1999 FY98: \$60,000 Total: \$120,000
Prin. Invest.: J SANKAR, A D KELKAR
Tech. Officer: LERC/R BHATT, LERC/E HANES
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 1 255 NORTH CAROLINA A&T STATE UNIVERSITY **7656**
THE CENTER FOR AEROSPACE RESEARCH: A NASA CENTER OF EXCELLENCE
 05/13/1997 – 12/31/1998 FY98: \$1,000,000 Total: \$1,700,000
Prin. Invest.: E O DOSE
Tech. Officer: LARC/W WHIGGLOW, JR.
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 987 NORTH CAROLINA A&T STATE UNIVERSITY **7657**
PERFORMANCE MODELING OF A PILOT IN A FREE-FLIGHT MODE
 04/10/1997 – 10/31/1998 FY98: \$77,000 Total: \$154,000
Prin. Invest.: C A NTUEN
Tech. Officer: ARC/R K DISMAKES
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 3 576 NORTH CAROLINA A&T STATE UNIVERSITY **7658**
AEROTHERMO STRUCTURAL ANALYSIS OF LOW COST COMPOSITE
NOZZLE/INLET COMPONENTS
 09/19/1997 – 07/22/1999 FY98: \$260,611 Total: \$499,494
Prin. Invest.: K N SHIVAKUMAR, D SREE
Tech. Officer: LERC/D R REDDY
CASE Category: 41 – AERONAUTICAL ENGR

NCC 4 105 NORTH CAROLINA A&T STATE UNIVERSITY **7659**
ON THE PREVIEWED CONTROL ACTION FOR AIRCRAFT FLYING QUALITIES
 07/25/1996 – 07/31/1999 FY98: \$0 Total: \$100,000
Prin. Invest.: D HOMAI FAR
Tech. Officer: DFRC/R K BOGUE
CASE Category: 41 – AERONAUTICAL ENGR

NCC 5 349 NORTH CAROLINA A&T STATE UNIVERSITY **7660**
INTEGRATION OF NASA RESEARCH INTO UNDERGRADUATE EDUCATION
IN MATHEMATICS/SCIENCE, ENGINEERING AND TECHNOLOGY
 06/29/1998 – 06/30/2003 FY98: \$500,000 Total: \$500,000
Prin. Invest.: A D KELKAR
Tech. Officer: GSFC/B WHITE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52119 NORTH CAROLINA A&T STATE UNIVERSITY **7661**
GRADUATE STUDENT RESEARCHER PROGRAM (GSRP) URM&D FOCUS
 06/29/1995 – 06/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: M A WALDEN
Tech. Officer: LARC/J JUANG
CASE Category: 42 – ASTRONAUTICAL ENGR

NGT 1 52178 NORTH CAROLINA A&T STATE UNIVERSITY **7662**
GRADUATE STUDENT RESEARCHERS PROGRAM
 09/12/1997 – 09/11/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: F VAINSTEIN, R P WILSON
Tech. Officer: LARC/S E WOODARD, LARC/J N JUANG
CASE Category: 42 – ASTRONAUTICAL ENGR

NGT 2 52201 NORTH CAROLINA A&T STATE UNIVERSITY **7663**
RONALD E MCNAIR GRADUATE RESEARCH FELLOWSHIP PROGRAM
 09/14/1995 – 12/31/1998 FY98: \$0 Total: \$970,500
Prin. Invest.: J C KELLY
Tech. Officer: ARC/A J HATCH
CASE Category: 49 – ENGINEERING, OTHER

NGT 5 90027 NORTH CAROLINA A&T STATE UNIVERSITY **7664**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH
 02/03/1997 – 08/14/1998 FY98: \$0 Total: \$87,538
Prin. Invest.: L SHARPE
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 45 – ELECTRICAL ENGR

NAG 1 244 NORTH CAROLINA STATE UNIV. – RALEIGH **7665**
NUMERICAL SOLUTIONS OF THE COMPLETE NAVIER – STOKES EQUATIONS
 12/04/1981 – 09/30/1997 FY98: -\$1 Total: \$849,239
Prin. Invest.: H A HASSAN, E GANTT, R W WALTERS
Tech. Officer: LARC/J E HARRIS, LARC/D H RUDY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1600 NORTH CAROLINA STATE UNIV. – RALEIGH **7666**
COMPUTATION OF FEEDBACK GAINS AND COMPENSATORS IN A NOISE
SUPPRESSION CONTROL SYSTEM
 03/25/1994 – 08/31/1997 FY98: \$0 Total: \$160,758
Prin. Invest.: H T BANKS, R C SMITH
Tech. Officer: LARC/R J SILCOX, LARC/H C LESTER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1733 NORTH CAROLINA STATE UNIV. – RALEIGH **7667**
DURABILITY, PERFORMANCE, AND EMISSIONS OF DIESEL ENGINES USING
CARBON FIBER PISTON AND LINER
 06/15/1995 – 08/14/1998 FY98: \$1 Total: \$30,548
Prin. Invest.: E M AFIFY, W L ROBERTS
Tech. Officer: LARC/G B NORTHAM, LARC/K RIVERS
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 1 1752 NORTH CAROLINA STATE UNIV. - RALEIGH **7668**
REMOTE SENSING OF TROPOSPHERIC CARBON MONOXIDE DATA COMPARISON AND RADIATIVE TRANSFER STATION
 09/12/1995 - 09/12/1998 FY98: \$1 Total: \$148,338
Prin. Invest.: S RAMAR
Tech. Officer: LARC/Y CONNORS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1819 NORTH CAROLINA STATE UNIV. - RALEIGH **7669**
PASSIVE PNEUMATIC CONTROL ON AIRCRAFT AFTERBODY
 03/13/1996 - 09/12/1998 FY98: \$1 Total: \$72,001
Prin. Invest.: D D CHOKANI, S L KRAUSHAAR
Tech. Officer: LARC/L S BANGERT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1829 NORTH CAROLINA STATE UNIV. - RALEIGH **7670**
ACTIVE CONTROL OF CAVITY NOISE-EXPERIMENT AND COMPUTATION
 04/09/1996 - 04/08/1999 FY98: \$35,001 Total: \$117,127
Prin. Invest.: N D CHOKANI
Tech. Officer: LARC/R W WLEZIEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1876 NORTH CAROLINA STATE UNIV. - RALEIGH **7671**
A NEW APPROACH FOR DETERMINING ONSET OF TRANSITION
 10/24/1996 - 10/31/1997 FY98: \$52 Total: \$39,948
Prin. Invest.: H A HASSAN
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1905 NORTH CAROLINA STATE UNIV. - RALEIGH **7672**
1997 NATIONAL SCIENCE OLYMPIAD TOURNAMENT
 02/27/1997 - 08/31/1997 FY98: \$0 Total: \$24,950
Prin. Invest.: P R DAIL
Tech. Officer: LARC/S E MASSENBERG
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1981 NORTH CAROLINA STATE UNIV. - RALEIGH **7673**
CRACK TURNING MECHANICS OF COMPOSITE WING SKIN PANELS
 12/17/1997 - 12/31/1998 FY98: \$119,401 Total: \$119,401
Prin. Invest.: F G YUAN
Tech. Officer: LARC/C C POE, LARC/I S RAJU
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1991 NORTH CAROLINA STATE UNIV. - RALEIGH **7674**
STUDY OF HIGH LIFT CONFIGURATIONS
 01/12/1998 - 01/11/1999 FY98: \$65,001 Total: \$65,001
Prin. Invest.: H A HASSAN
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2086 NORTH CAROLINA STATE UNIV. - RALEIGH **7675**
AN INVESTIGATION OF TERMINAL GUIDANCE AND CONTROL TECHNIQUES FOR A ROBOTIC MARS LANDER
 07/14/1998 - 01/15/1999 FY98: \$29,948 Total: \$29,948
Prin. Invest.: G D WALBERG, B BIRGE
Tech. Officer: LARC/R D BRAUN, LARC/E M QUEEN
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 2 684 NORTH CAROLINA STATE UNIV. - RALEIGH **7676**
"HETEROGENEOUS PHOTOCATALYTIC OXIDATION OF ATMOSPHERIC TRACE CONTAMINANTS"
 11/16/1990 - 09/30/1996 FY98: -\$217 Total: \$249,783
Prin. Invest.: D F JLLIS
Tech. Officer: AR/JJ E FINN, AR/WE BERRY
CASE Category: 43 - CHEMICAL ENGR

NAG 2 1115 NORTH CAROLINA STATE UNIV. - RALEIGH **7677**
VIRTUAL PROTOTYPING FOR CARBON NANOTUBES & THEIR COMPOSITIONS
 02/14/1997 - 03/11/1998 FY98: \$55,228 Total: \$125,115
Prin. Invest.: B L AKOBSON
Tech. Officer: AR/JC LEVIT, AR/D A BAILEY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1119 NORTH CAROLINA STATE UNIV. - RALEIGH **7678**
COMPUTATIONAL STUDY OF NANOMETER-SCALE DEVICE OPERATION & ENGINEERING
 02/20/1997 - 12/11/1998 FY98: \$74,906 Total: \$174,006
Prin. Invest.: D W BRENNER, C K HALL
Tech. Officer: AR/JC LEVIT, AR/D A BAILEY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 2254 NORTH CAROLINA STATE UNIV. - RALEIGH **7679**
THE PHYSICAL FOUNDATIONS OF PARTICLE ACCELERATION BY COLLISIONLESS SHOCKS IN SPACE
 04/27/1993 - 04/10/1999 FY98: \$65,800 Total: \$658,789
Prin. Invest.: D C ELLISON
Tech. Officer: GSFC/J GREBOWSKY, GSFC/J D BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 2844 NORTH CAROLINA STATE UNIV. - RALEIGH **7680**
X-RAY EMISSION AND DYNAMICS OF SUPERNOVA REMNANTS
 12/14/1994 - 12/14/1998 FY98: \$0 Total: \$375,000
Prin. Invest.: S P REYNOLDS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2972 NORTH CAROLINA STATE UNIV. - RALEIGH **7681**
THE RADIO-BRIGHT GALACTIC SUPERNOVA REMNANT G41.1-0.3(3C 397)
 06/13/1995 - 12/14/1997 FY98: \$0 Total: \$17,865
Prin. Invest.: S P REYNOLDS
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3415 NORTH CAROLINA STATE UNIV. - RALEIGH **7682**
THE DETAILED MORPHOLOGY OF G11.2-0.3 (SN 386 AD)
 09/14/1996 - 09/30/1998 FY98: \$0 Total: \$8,719
Prin. Invest.: S P REYNOLDS
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 3743 NORTH CAROLINA STATE UNIV. - RALEIGH **7683**
NASA SPECIALIZED CENTER OF RESEARCH AND TRAINING IN BIOLOGY
 03/19/1997 - 03/14/1999 FY98: \$603,327 Total: \$1,603,116
Prin. Invest.: E DAVIES
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4802 NORTH CAROLINA STATE UNIV. - RALEIGH **7684**
THE ROLE OF CONVECTION OVER THE GULF OF MEXICO IN STREAM
INTERACTIONS RESULTING IN RECENT EXTREME EA
 08/09/1997 - 07/31/1999 FY98: \$110,000 Total: \$216,507
Prin. Invest.: M KAPLAN, NONE
Tech. Officer: GSFC/A NWGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6520 NORTH CAROLINA STATE UNIV. - RALEIGH **7685**
SEAWIFS DATA COLLECTION, CALIBRATION AND PROCESSING FOR THE
INDIAN OCEAN
 02/12/1998 - 01/31/1999 FY98: \$50,088 Total: \$50,088
Prin. Invest.: J MORRISON
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6586 NORTH CAROLINA STATE UNIV. - RALEIGH **7686**
REFINING REMOTE SENSING ESTIMATES OF NUTRIENT CONCENTRA-
TIONS BASED ON TEMPERATURE
 11/07/1997 - 10/31/1999 FY98: \$125,068 Total: \$125,068
Prin. Invest.: D KAMYKOWSKI
Tech. Officer: GSFC/J A YODER
CASE Category: 33 - OCEANOGRAPHY

NAG 5 7153 NORTH CAROLINA STATE UNIV. - RALEIGH **7687**
X-RAY EMISSION AND DYNAMICS OF SUPERNOVA REMNANTS - ATP
 03/31/1998 - 03/14/1999 FY98: \$125,000 Total: \$125,000
Prin. Invest.: S P REYNOLDS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7406 NORTH CAROLINA STATE UNIV. - RALEIGH **7688**
DUST DESTRUCTION IN SUPERNOVA REMNANTS - ASCA PROPOSAL
 05/28/1998 - 05/31/1999 FY98: \$10,499 Total: \$10,499
Prin. Invest.: K BORKOWSKI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 8 1479 NORTH CAROLINA STATE UNIV. - RALEIGH **7689**
R/S GROWTH AND PROPERTIES OF CARBON
 03/19/1998 - 01/31/2002 FY98: \$66,667 Total: \$66,667
Prin. Invest.: J BERNHOLC
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 1331 NORTH CAROLINA STATE UNIV. - RALEIGH **7690**
SPACE ENGINEERING RESEARCH CENTER
 07/12/1988 - 12/31/1999 FY98: \$0 Total: \$11,364,144
Prin. Invest.: F R DEJARNETTE
Tech. Officer: HQ/S M WANDER
CASE Category: 49 - ENGINEERING, OTHER

NAGW 3575 NORTH CAROLINA STATE UNIV. - RALEIGH **7691**
INFLUENCE OF VERTICAL MIXING ON THE SEAWIFS ALGORITHM
 05/26/1993 - 07/01/1998 FY98: \$0 Total: \$453,808
Prin. Invest.: D KAMYKOWSKI
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 33 - OCEANOGRAPHY

NAGW 4869 NORTH CAROLINA STATE UNIV. - RALEIGH **7692**
A LABORATORY PLASMA SOURCE AS AN MHD MODEL FOR ASTROPHYSICAL
JETS
 12/15/1995 - 09/30/1997 FY98: -\$12 Total: \$59,988
Prin. Invest.: R M MAYO
Tech. Officer: HQ/L TAFF, HQ/D W WEEDMAN
CASE Category: 13 - PHYSICS

NAS 1 18944 NORTH CAROLINA STATE UNIV. - RALEIGH **7693**
SAGE III SCIENCE INVESTIGATION SUPPORT; P.I. PROFESSOR SAXENA
 10/06/1989 - 01/31/2005 FY98: \$40,000 Total: \$286,637
Prin. Invest.: V SAXENA
Tech. Officer: LARC/G MADDREA
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 1 112 NORTH CAROLINA STATE UNIV. - RALEIGH **7694**
STUDY OF THE TRANSITIONAL FLOW REGIME USING THE MONTE CARLO
METHODS
 03/10/1987 - 10/31/1998 FY98: \$100,003 Total: \$1,491,876
Prin. Invest.: H A HASSAN
Tech. Officer: LARC/K SUTTON, LARC/J N MOSS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 188 NORTH CAROLINA STATE UNIV. - RALEIGH **7695**
NUMERICAL MODELING STUDIES OF WAKE VORTEX TRANSPORT AND
EVOLUTION WITHIN THE PLANETARY BOUNDARY LAYER
 01/11/1994 - 04/06/1999 FY98: \$264,332 Total: \$945,001
Prin. Invest.: Y L LIN, S P ARYA, M L KAPLAN
Tech. Officer: LARC/F H PROCTOR, LARC/D A HINTON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 220 NORTH CAROLINA STATE UNIV. - RALEIGH **7696**
AN OPERATIONAL COMPUTATIONAL TERMINAL AREA PBL PREDICTION
SYSTEM
 01/23/1996 - 01/22/1999 FY98: \$192,275 Total: \$504,704
Prin. Invest.: Y L LIN, M L KAPLAN
Tech. Officer: LARC/F H PROCTOR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 244 NORTH CAROLINA STATE UNIV. - RALEIGH **7697**
CARBON-CARBON ENGINE VALVE DEVELOPMENT
 09/23/1996 - 09/22/1998 FY98: \$11,027 Total: \$23,985
Prin. Invest.: W L ROBERTS, J W DAVID
Tech. Officer: LARC/G B NORTHAM, LARC/P O RANSONE
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 5235 NORTH CAROLINA STATE UNIV. - RALEIGH **7698**
AEROASSIST APPLICATIONS TO HUMAN MARS EXPLORATION
 08/14/1997 - 12/31/1997 FY98: \$0 Total: \$16,864
Prin. Invest.: G D WALBERG
Tech. Officer: ARC/P F WERCINSKI
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC 8 95 NORTH CAROLINA STATE UNIV. - RALEIGH **7699**
FUNDAMENTAL ASPECTS OF VAPOR DEPOSITION AND ETCHING UNDER
DIFFUSION CONTROLLED TRANSPORT
 05/31/1996 - 08/31/2000 FY98: \$157,813 Total: \$525,133
Prin. Invest.: K J BACHMANN
Tech. Officer: MSFC/S SPEARMAN, MSFC/J GRISHAM
CASE Category: 99 - MULTIDISCIPL, OTHER

NGT 10030 NORTH CAROLINA STATE UNIV. - RALEIGH **7700**
UNIVERSITY SPACE ENGINEERING RESEARCH CENTER GRADUATE RESEARCH ASSISTANTSHIPS
 12/09/1994 - 09/30/1998 FY98: \$0 Total: \$423,473
Prin. Invest.: F R DEJARNETTE
Tech. Officer: HQ/V BITTINGER
CASE Category: 49 - ENGINEERING, OTHER

NGT 30328 NORTH CAROLINA STATE UNIV. - RALEIGH **7701**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/11/1995 - 08/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: S KHORRAM
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 40031 NORTH CAROLINA STATE UNIV. - RALEIGH **7702**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 03/22/1991 - 09/30/1997 FY98: -\$9 Total: \$1,140,991
Prin. Invest.: G N WALBERG
Tech. Officer: HQ/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51189 NORTH CAROLINA STATE UNIV. - RALEIGH **7703**
GRADUATE STUDENT RESEARCHERS PROGRAM
 09/29/1993 - 02/15/1997 FY98: -\$27 Total: \$65,973
Prin. Invest.: D S MCRAE
Tech. Officer: LARC/L EVANS
CASE Category: 41 - AERONAUTICAL ENGR

NGT 51248 NORTH CAROLINA STATE UNIV. - RALEIGH **7704**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/14/1994 - 06/30/1997 FY98: -\$737 Total: \$45,696
Prin. Invest.: F YUAN
Tech. Officer: LARC/L EVANS
CASE Category: 41 - AERONAUTICAL ENGR

NGT 70344 NORTH CAROLINA STATE UNIV. - RALEIGH **7705**
GRADUATE STUDENT RESEARCHERS (UMF) PROGRAM
 07/14/1993 - 08/14/1997 FY98: -\$325 Total: \$87,675
Prin. Invest.: W ALEXANDER
Tech. Officer: HQ/D K RUSSELL
CASE Category: 45 - ELECTRICAL ENGR

NGT 70402 NORTH CAROLINA STATE UNIV. - RALEIGH **7706**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 09/29/1994 - 07/31/1997 FY98: -\$2,825 Total: \$129,175
Prin. Invest.: M A VOUK, D AGRAWAL
Tech. Officer: HQ/D K RUSSELL
CASE Category: 45 - ELECTRICAL ENGR

NGT 90126 NORTH CAROLINA STATE UNIV. - RALEIGH **7707**
NGT-90126/NORTH CAROLINA STATE/UNDERGRADUATE STUDENT RESEARCHERS PROGRAM/UMF
 10/29/1992 - 08/14/1997 FY98: -\$15,053 Total: \$29,979
Prin. Invest.: W E COLEMAN
Tech. Officer: HQ/M JONES
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 1 52125 NORTH CAROLINA STATE UNIV. - RALEIGH **7708**
GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 05/15/1996 - 06/30/1999 FY98: \$22,001 Total: \$66,001
Prin. Invest.: L H LEE, E M AFIFY
Tech. Officer: LARC/G B NORTHAM, LARC/P O RANSONE
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 1 52154 NORTH CAROLINA STATE UNIV. - RALEIGH **7709**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 01/10/1997 - 12/11/1997 FY98: -\$3,337 Total: \$18,663
Prin. Invest.: G A EXOPOULOS, H A HASSAN
Tech. Officer: LARC/J L THOMAS, LARC/M G MARCARAEG
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 1 52164 NORTH CAROLINA STATE UNIV. - RALEIGH **7710**
GRADUATE STUDENT RESEARCH PROGRAM
 08/04/1997 - 08/4/1999 FY98: \$22,001 Total: \$44,001
Prin. Invest.: O J MYERS
Tech. Officer: LARC/H N ZUMBRUN, LARC/M G FLECK
CASE Category: 46 - MECHANICAL ENGR

NGT 1 52172 NORTH CAROLINA STATE UNIV. - RALEIGH **7711**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/30/1997 - 06/30/1998 FY98: \$12,001 Total: \$22,001
Prin. Invest.: F R DEJARNETTE, K E HARWELL
Tech. Officer: LARC/H H HAMILTON, LARC/E V ZOBY
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52177 NORTH CAROLINA STATE UNIV. - RALEIGH **7712**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/03/1997 - 09/02/1999 FY98: \$22,001 Total: \$44,001
Prin. Invest.: H A HASSAN
Tech. Officer: LARC/S P WILKINSON
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52183 NORTH CAROLINA STATE UNIV. - RALEIGH **7713**
GRADUATE STUDENTS RESEARCHERS PROGRAM (GSRP)
 08/31/1998 - 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M SMITH
Tech. Officer: LARC/B E ANDERSON, LARC/V S CONNORS
CASE Category: 41 - ATMOSPHERIC SCIENCE

NGT 1 52196 NORTH CAROLINA STATE UNIV. - RALEIGH **7714**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/22/1998 - 06/30/1999 FY98: \$10,001 Total: \$10,001
Prin. Invest.: M L JOYNER, H T BANKS
Tech. Officer: LARC/W P WINFREE, LARC/R A WINCHESKI
CASE Category: 41 - MATHEMATICS

NGT 5 40 NORTH CAROLINA STATE UNIV. - RALEIGH **7715**
THIS AGREEMENT IS FOR A GRADUATE RESEARCH ASSISTANT DORWIN BLACK, PHD STUDENT IN NUCLEAR ENGINEERING
 06/19/1997 - 09/30/1997 FY98: \$0 Total: \$5,500
Prin. Invest.: F DE ARNETTE
Tech. Officer: GSF/R AVANT
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 65 NORTH CAROLINA STATE UNIV. - RALEIGH **7716**
GSRP TRAINING GRANT - KRISTY DYER - THERMAL AND NO N-THERMAL
PHYSICS OF OUNGSUPERNOVA REMNANTS
 05/27/1998 - 08/14/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: S O REYNOLDS
Tech. Officer: GSFC/M S BURRELL
CASE Category: 13 - PHYSICS

NGT 5 30054 NORTH CAROLINA STATE UNIV. - RALEIGH **7717**
CONSTRAINING CARBON MONOXIDE SOURCES BY MODELING I TS
STABLE ISOTOPES
 10/24/1997 - 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: D REICHL
Tech. Officer: GSFC/A GHASSEM
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40011 NORTH CAROLINA STATE UNIV. - RALEIGH **7718**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
AND FELLOWSHIP PROGRAM.
 01/30/1997 - 02/28/1999 FY98: \$256,250 Total: \$461,250
Prin. Invest.: F R DEJARNETTE
Tech. Officer: HQ/J DASCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 70001 NORTH CAROLINA STATE UNIV. - RALEIGH **7719**
GRADUATE STUDENT RESEARCH PROGRAM - STUDENTS: FON ELLIS
 08/25/1997 - 07/31/1998 FY98: -\$22,000 Total: \$16,500
Prin. Invest.: VOUK
Tech. Officer: GSFC/M STOUSENERGER
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 3474 PEMBROKE STATE UNIVERSITY **7720**
MATHEMATICS, SCIENCE AND TECHNOLOGY AWARDS FOR TEA
ENHANCEMENT PROGRAM (MASTAP)
 11/18/1996 - 05/31/1998 FY98: \$0 Total: \$127,270
Prin. Invest.: J D'ARRUDA
Tech. Officer: GSFC/M MATEU
CASE Category: 21 - MATHEMATICS

NGT 5 90036 PEMBROKE STATE UNIVERSITY **7721**
UNDERGRADUATE STUDENT AWARD FOR RESEARCH
 01/31/1997 - 08/14/1998 FY98: \$0 Total: \$68,000
Prin. Invest.: J CLARK
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6097 SAINT AUGUSTINE'S COLLEGE **7722**
PACE/MSET AWARD
 08/19/1997 - 08/14/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: Y M COSTEN
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 5150 SAINT AUGUSTINE'S COLLEGE **7723**
SAINT AUGUSTINE'S COLLEGE SUMMER SCIENCE CAMP
 09/26/1996 - 06/30/1997 FY98: -\$1 Total: \$99,999
Prin. Invest.: D M COSTON
Tech. Officer: HQ/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6359 SHAW UNIVERSITY **7724**
SHAW UNIVERSITY MATHEMATICS, SCIENCE & TECHNOLOGY AWARDS
FOR TEACHER & CURRICULUM ENHANCEMENT PROGRM
 10/02/1997 - 06/30/1998 FY98: \$200,000 Total: \$200,000
Prin. Invest.: J KEYES
Tech. Officer: GSFC/M MATEU
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4617 SHAW UNIVERSITY **7725**
SHAW UNIVERSITY MATHEMATICS, SCIENCE AND TECHNOLOG Y AWARDS
FOR TEACHER AND CURRICULUM ENHANCEMENT
 07/11/1995 - 06/30/1997 FY98: \$0 Total: \$400,000
Prin. Invest.: J H KEYS
Tech. Officer: HQ/B L WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90059 SHAW UNIVERSITY **7726**
UNDERGRADUATE STUDENT AWARD FOR RESEARCH (USAR)
 03/07/1997 - 08/14/1998 FY98: \$0 Total: \$120,000
Prin. Invest.: M CLAYTON
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 1188 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7727**
BONE MATRIX CHANGES DURING SKELETAL UNLOADING & RE LOADING
 03/18/1998 - 09/30/1998 FY98: \$70,000 Total: \$70,000
Prin. Invest.: M YAMAUCHI, W J GRZESKI
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3100 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7728**
RADIATIVE PHYSICS OF THE SOFT GAMMA REPEATERS
 10/11/1995 - 10/14/1997 FY98: \$0 Total: \$99,000
Prin. Invest.: A C THOMPSON
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3946 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7729**
PHYSICAL & OPTICAL PROPERTIES OF LABORATORY GENERA APPLICA-
TIONS TO STRATOSPHERIC CHEMISTRY
 02/21/1997 - 12/31/1998 FY98: \$94,966 Total: \$189,932
Prin. Invest.: R E MILLER
Tech. Officer: GSFC/P A DECOLA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6013 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7730**
SPECTROSCOPIC CHARACTERIZATION OF CRYOGENIC AEROSO ETARY
ATMOSPHERES
 09/11/1997 - 09/30/1998 FY98: \$0 Total: \$20,230
Prin. Invest.: D E MILLER
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6278 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7731**
GREENHOUSE GAS (N2O, CH4) EXCHANGE AND N CYCLING D FERTILIZED
(FACE) TEMPERATE FOREST
 09/12/1997 - 02/28/1999 FY98: \$0 Total: \$131,742
Prin. Invest.: S C WHALEN *Prin. Invest.:* NONE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6499 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7732**
POPULATION-ENVIRONMENT INTERACTIONS: AN INTEGRATED PROGRAM OF RESEARCH, INSTRUCTION, AND TRAINING
 11/18/1997 - 03/31/1999 FY98: \$374,000 Total: \$374,000
Prin. Invest.: S WALSH
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6583 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7733**
IMPROVED AREA ESTIMATES FOR LAND COVER AND LAND-COVER CHANGE FROM LOW SPATIAL RESOLUTION REMOTE SENSING
 10/31/1997 - 06/30/1999 FY98: \$195,421 Total: \$195,421
Prin. Invest.: A MOODY
Tech. Officer: GSFC/D WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1148 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7734**
EVALUATION OF CRYSTAL GROWTH
 08/03/1995 - 08/02/1998 FY98: \$98,031 Total: \$596,940
Prin. Invest.: C W CANTIN
Tech. Officer: MSFC/D NOEUE
CASE Category: 99 - MULTIDISCIPL, OTHER

NAGW 1576 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7735**
INFRARED SPECTROSCOPY OF NEUTRAL AND IONIC WATER COMPLEXES
 12/21/1988 - 09/04/1997 FY98: \$0 Total: \$427,960
Prin. Invest.: R E MILLER
Tech. Officer: HQ/J T BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAGW 3881 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7736**
NAGW-3881/B UNIV NORTH CAROLINA "LAB. STUDIES OF NITRIC ACID HYDRATE AEROSOLS: FORMATION & CHAR."
 03/04/1994 - 03/31/1997 FY98: \$0 Total: \$291,000
Prin. Invest.: R E MILLER, NONE
Tech. Officer: HQ/M J KURYLO, HQ/A C JANETOS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 3946 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7737**
BIOCHEMICAL CHANGES OF BONE IN A MODEL OF WEIGHT LOSS
 04/20/1994 - 09/30/1997 FY98: \$0 Total: \$402,000
Prin. Invest.: M YAMAUCHI
Tech. Officer: HQ/F M SULZMAN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 5158 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7738**
IMPROVED AREA ESTIMATES FOR LAND COVER & LAND COVER CHANGE FROM LOW SPATIAL RESOLUTION REMOTE SENSING
 10/03/1996 - 09/30/1997 FY98: \$0 Total: \$127,922
Prin. Invest.: A MOODY
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 5288 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7739**
CARBON NANOTUBE-POLYMER COMPOSITES: FABRICATION & PROPERTIES
 08/13/1998 - 07/31/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: O ZHOU
Tech. Officer: ARC/R L JAFFE, ARC/M MEYYAPPAN
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 5291 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7740**
CARBON NANOTUBE BASED QUANTUM DEVICES
 08/20/1998 - 11/14/1998 FY98: \$6,000 Total: \$6,000
Prin. Invest.: J LI
Tech. Officer: ARC/R L JAFFE, ARC/M MEYYAPPAN
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 5 295 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7741**
AGRICULTURAL COLONIZATION ON THE ECUADORIAN AMAZON: POPULATION, BIOLOGICAL AND GEOGRAPHICAL FACTORS
 06/12/1998 - 06/14/1999 FY98: \$295,139 Total: \$295,139
Prin. Invest.: R B LEBORROW
Tech. Officer: GSFC/D DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 337 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7742**
RADON-222 AND STABLE CARBON ISOTOPE TRACING OF CARBON EXCHANGE AND TRACE GAS FLUXES IN OLD GROWTH FORESTS
 06/17/1998 - 12/31/1998 FY98: \$173,884 Total: \$173,884
Prin. Invest.: C W MARTENS
Tech. Officer: GSFC/D DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 2 52247 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL **7743**
SYNTHESIS & PROPERTIES OF CARBON NANOTUBES & CARBON NANOTUBE INTERCALATION COMPOUNDS
 08/19/1998 - 08/14/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: O ZHOU
Prin. Invest.: NONE
Tech. Officer: ARC/R L JAFFE
CASE Category: 47 - METAL & MATERIALS ENGR

NAS 3 27767 UNIVERSITY OF NORTH CAROLINA-GREENSBORO **7744**
NRA 95-LERC-
 10/13/1995 - 12/11/1996 FY98: -\$6,907 Total: \$43,093
Prin. Invest.: J SANKAR
Tech. Officer: LEIC/R BHATT
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 8 1314 UNIVERSITY OF NORTH CAROLINA, CHARLOTTE **7745**
RESEARCH JOVE
 01/22/1997 - 08/11/1998 FY98: \$17,000 Total: \$117,000
Prin. Invest.: R D FORSYTHE, P WANG, S E MARSHALL
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTIDISCIPL, OTHER

NAG 8 1514 UNIVERSITY OF NORTH CAROLINA, CHARLOTTE **7746**
VARIABILITY & PREDICTABILITY OF LAND-ATMOSPHERE INTERACTIONS: OBSERVATIONAL AND MODELING STUDIES
 06/02/1998 - 05/11/2001 FY98: \$37,706 Total: \$37,706
Prin. Invest.: S MARSHALL
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1203 WAKE FOREST UNIVERSITY **7747**
FUCUS AS A MODEL SYSTEM TO STUDY THE ROLE OF SUXIN TRANSPORT & THE ACTIN CYTOSKELETON IN GRAVITY...
 04/06/1998 - 09/30/1998 FY98: \$59,271 Total: \$59,271
Prin. Invest.: G K MUDAAY
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3968 WAKE FOREST UNIVERSITY **7748**
DIETARY OXALATE AND STONE RISK
 03/11/1997 - 02/28/1999 FY98: \$88,353 Total: \$171,161
Prin. Invest.: R P HOLMES
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4052 WAKE FOREST UNIVERSITY **7749**
THE ROLE OF THE ACTIN CYTOSKELETON IN AUXIN TRANSPORT AND GRAVITROPISMS
 06/30/1994 - 11/30/1997 FY98: \$0 Total: \$235,087
Prin. Invest.: G MUDAY
Tech. Officer: HQ/T W HALSTEAD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 2011 WINSTON-SALEM STATE UNIVERSITY **7750**
PARALLEL OBJECT-ORIENTED PROGRAMMING IN NETWORK ENVIRONMENT
 02/21/1997 - 02/23/2000 FY98: \$47,989 Total: \$94,561
Prin. Invest.: A RADENSKI
Tech. Officer: LERC/G FOLLEN
CASE Category: 22 - COMPUTER SCIENCE

NAG 8 1099 WINSTON-SALEM STATE UNIVERSITY **7751**
JOVE
 10/18/1994 - 05/31/1997 FY98: \$0 Total: \$87,000
Prin. Invest.: F LEE, E J JONES
Tech. Officer: MSFC/F SIX
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 5 90010 WINSTON-SALEM STATE UNIVERSITY **7752**
UNDERGRADUATE SCHOLAR AWARDS FOR RESEARCH (USAR)
 12/19/1996 - 08/31/1998 FY98: \$0 Total: \$48,000
Prin. Invest.: W B ATKINSON
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NORTH DAKOTA

NAG 3 1603 NORTH DAKOTA STATE UNIVERSITY **7753**
NOISE AND DYNAMICAL PATTERN SELECTION IN SOLIDIFICATION
 10/14/1994 - 10/13/1997 FY98: -\$491 Total: \$77,091
Prin. Invest.: D A KURTZE
Tech. Officer: LERC/A CHAIT, LERC/V PINES
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 8 1007 NORTH DAKOTA STATE UNIVERSITY **7754**
JOVE
 11/19/1993 - 09/30/1998 FY98: \$20,000 Total: \$152,767
Prin. Invest.: P HAMMOND, D KURTZE, A UNGAR
Tech. Officer: MSFC/F SIX
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 5209 NORTH DAKOTA STATE UNIVERSITY **7755**
REFINEMENT OF A RAT AORTIC BLOOD FLOWMETER
 04/07/1997 - 07/31/1998 FY98: \$0 Total: \$29,917
Prin. Invest.: D EWERT
Tech. Officer: ARC/J HINES
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NGT 1 52159 NORTH DAKOTA STATE UNIVERSITY **7756**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/27/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: M SOUCEK, C R WOLD
Tech. Officer: LARC/R PATER
CASE Category: 11 - ASTRONOMY

NAG 5 6087 TURTLE MOUNTAIN COMMUNITY COLLEGE **7757**
GRAPHING CALCULATOR MINI COURSE
 08/11/1997 - 03/31/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: S KARNAWAT
Tech. Officer: GSFC/P SAKIMOTO
CASE Category: 21 - MATHEMATICS

NAG 5 6088 TURTLE MOUNTAIN COMMUNITY COLLEGE **7758**
RECRUITMENT AND RETENTION OF INDIANS IN SCIENCE AND ENGINEERING
 08/11/1997 - 07/14/1998 FY98: \$0 Total: \$22,105
Prin. Invest.: S KARNAWAT
Tech. Officer: GSFC/P SAKIMOTO
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 3620 TURTLE MOUNTAIN COMMUNITY COLLEGE **7759**
RECRUITMENT AND RETENTION OF INDIANS IN SCIENCE AND ENGINEERING
 05/28/1993 - 06/30/1997 FY98: \$0 Total: \$81,000
Prin. Invest.: S KARNAWAT
Tech. Officer: HQ/B WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4953 TURTLE MOUNTAIN COMMUNITY COLLEGE **7760**
GRAPHING CALCULATOR MINI COURSE
 02/29/1996 - 09/30/1997 FY98: \$0 Total: \$30,000
Prin. Invest.: S KARNAWAT
Tech. Officer: HQ/M A STOUTSENBERGER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 1 1706 UNIVERSITY OF NORTH DAKOTA **7761**
ANALYSIS OF CIRRUS CLOUD MICROPHYSICAL DATA AND ANVIL CIRRUS OBSERVATIONS
 04/17/1995 - 08/31/1998 FY98: \$0 Total: \$82,000
Prin. Invest.: M R POELLLOT
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1829 UNIVERSITY OF NORTH DAKOTA **7762**
AUTOMATED MESHING ANALYSIS OF SPIRAL BEVEL GEARS
 04/02/1996 - 04/01/1999 FY98: \$0 Total: \$62,844
Prin. Invest.: G D BIBEL
Tech. Officer: LERC/R F HANDSCHUH, LERC/J J COY
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1911 UNIVERSITY OF NORTH DAKOTA **7763**
AMERICAN INDIANS INTO COMPUTER SCIENCE & ENGINEERING PROGRAM (AICSE)
 07/08/1996 - 11/01/1998 FY98: \$0 Total: \$42,106
Prin. Invest.: M S ALI, A ALLERY
Tech. Officer: LERC/D R PLUMER, LERC/S A MERRITT
CASE Category: 22 - COMPUTER SCIENCE

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| NAG 3 2094 UNIVERSITY OF NORTH DAKOTA 7764 ANALYSIS AND MODELING OF TRANSIENT THERMOHYDRAULIC S OF CRY- OGNEIC TRANSFER LINES 12/12/1997 - 11/30/1998 FY98: \$33,347 Total: \$33,347 Prin. Invest.: A R HASAN Tech. Officer: LERC/M M HASAN CASE Category: 46 - MECHANICAL ENGR | NAGW 4810 UNIVERSITY OF NORTH DAKOTA 7772 A PUBLIC ACCESS RESOURCE CENTER (PARC) EMPOWERING THE GEN- ERAL PUBLIC TO USE EOSDIS 09/28/1995 - 02/28/1997 FY98: \$0 Total: \$310,257 Prin. Invest.: G SEIELSTAD Tech. Officer: HC/A TUYAHOV CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 2696 UNIVERSITY OF NORTH DAKOTA 7765 BRINGING VOLCANO REMOTE SENSING DATA TO CLASSROOMS NATIONAL PARKS AND MONUMENTS 08/17/1994 - 08/31/1997 FY98: \$0 Total: \$855,487 Prin. Invest.: C A WOOD Tech. Officer: GSFC/F HASLER CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NCC 5 193 UNIVERSITY OF NORTH DAKOTA 7773 A MULTI-USE AIRBORNE RESEARCH FACILITY 05/15/1997 - 04/30/1999 FY98: \$661,795 Total: \$781,850 Prin. Invest.: J S ITH Tech. Officer: GSFC/J HUNING CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 2699 UNIVERSITY OF NORTH DAKOTA 7766 ANALYSIS OF IN SITU CONTRAIL MEASUREMENTS FROM FIRE CIRRUUS IFO-II 08/24/1994 - 04/30/1998 FY98: \$0 Total: \$54,714 Prin. Invest.: M POELLOT Tech. Officer: GSFC/R W STEWART CASE Category: 11 - ASTRONOMY | NCC 5 310 UNIVERSITY OF NORTH DAKOTA 7774 A PUBLIC ACCESS RESOURCE CTR(PARC)EMPOWERING THE GENERAL PUBLIC TO USE EOSDIS(PHASE III-OPERATIONS) 04/11/1998 - 02/8/2001 FY98: \$330,000 Total: \$330,000 Prin. Invest.: G S IELSTAD Tech. Officer: GS C/A TUYAHOV CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAG 5 3488 UNIVERSITY OF NORTH DAKOTA 7767 ARE THE UNIDENTIFIED EXTENDED SOURCES WITH NO GALA A1367 TYPE CLUSTER FIELDS MERGER REMNANTS? 10/31/1996 - 10/31/1999 FY98: \$0 Total: \$36,571 Prin. Invest.: M J HENRIKSEN Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY | NGT 40043 UNIVERSITY OF NORTH DAKOTA 7775 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM 05/24/1991 - 09/0/1998 FY98: \$0 Total: \$1,004,000 Prin. Invest.: C A NOOD Tech. Officer: HQ E T SCHWARTZ CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAG 5 3616 UNIVERSITY OF NORTH DAKOTA 7768 A PUBLIC ACCESS RESOURCE CENTER (PARC) EMPOWERING TO USE EOSDI-IMPLEMENTATION PHASE 11/22/1996 - 06/30/1999 FY98: \$1,550,000 Total: \$2,050,000 Prin. Invest.: G A SEIELSTAD Tech. Officer: GSFC/A J TUYAHOV CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NGT 5 40034 UNIVERSITY OF NORTH DAKOTA 7776 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM. 02/13/1997 - 02/3/1999 FY98: \$256,250 Total: \$426,250 Prin. Invest.: C A WOOD Tech. Officer: GS C/L KEFFER CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAG 5 6778 UNIVERSITY OF NORTH DAKOTA 7769 A SATELLITE GROUND STATION FOR RESEARCH, EDUCATION , AND PUB- LIC DATAACCESS 01/14/1998 - 12/31/1998 FY98: \$81,648 Total: \$81,648 Prin. Invest.: G SEIELSTAD Tech. Officer: GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NCC 3 425 BALDWIN - WALLACE COLLEGE 7777 COMBUSTION, FLUIDS, AND MATERIALS EXPERIMENTS IN A REDUCED GRAVITY ENVIRONMENT 07/24/1995 - 07/21/1998 FY98: \$0 Total: \$152,220 Prin. Invest.: R L VALLIS Tech. Officer: LER S/M NUSSBAUM CASE Category: 49 - ENGINEERING, OTHER |
| NAG 5 7546 UNIVERSITY OF NORTH DAKOTA 7770 THE EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND REGIONS 06/22/1998 - 06/30/2001 FY98: \$109,407 Total: \$109,407 Prin. Invest.: T L MOTE Tech. Officer: GSFC/E T ENGMAN CASE Category: 32 - GEOLOGICAL SCIENCE | NAG 3 1046 CASE WESTERN RESERVE UNIVERSITY 7778 MODELING OF SOLID FUEL COMBUSTION IN VERY LOW-SPEED OXYGEN STREAMS 05/18/1989 - 07/31/1998 FY98: \$41,257 Total: \$1,011,518 Prin. Invest.: J S TEN Tech. Officer: LERC/J A SALZMAN CASE Category: 49 - ENGINEERING, OTHER |
| NAG 9 945 UNIVERSITY OF NORTH DAKOTA 7771 ORAL HISTORY RESEARCH PROJECT 06/04/1997 - 09/30/1997 FY98: \$0 Total: \$9,925 Prin. Invest.: G SEIELSTAD Tech. Officer: JSC/DL ROSS CASE Category: 73 - HISTORY | NAG 3 1568 CASE WESTERN RESERVE UNIVERSITY 7779 SURFACE TENSION DRIVEN CONVECTION EXPERIMENTS - 2 02/14/1994 - 10/14/1998 FY98: \$0 Total: \$1,403,175 Prin. Invest.: S O S RACH, Y KAMOTANI Tech. Officer: LERC/A D PLINE CASE Category: 13 - PHYSICAL SCIENCE, OTHER |

OHIO

NAG 3 1702 CASE WESTERN RESERVE UNIVERSITY **7780**
STRUCTURAL AND ELECTRICAL CHARACTERIZATION OF LATTICE DEFECTS IN SiC
 02/10/1995 – 11/25/1997 FY98: \$0 Total: \$225,006
Prin. Invest.: P PIROUZ
Tech. Officer: LERC/J A POWELL
CASE Category: 13 – PHYSICS

NAG 3 1798 CASE WESTERN RESERVE UNIVERSITY **7781**
INTERACTION OF MOLECULES & PARTICLES BY ANALYSIS OF COMPUTER TRAJECTORIES
 12/14/1995 – 06/30/1997 FY98: \$1,123 Total: \$77,676
Prin. Invest.: I GREBER
Tech. Officer: LERC/D FERAUSON
CASE Category: 13 – PHYSICS

NAG 3 1868 CASE WESTERN RESERVE UNIVERSITY **7782**
INDUSTRIAL PROCESSES INFLUENCED BY GRAVITY
 05/09/1996 – 05/08/2000 FY98: \$99,165 Total: \$262,775
Prin. Invest.: S OSTRACH, Y KAMOTANI
Tech. Officer: LERC/A D PLINE, LERC/N R HALL
CASE Category: 49 – ENGINEERING, OTHER

NAG 3 1913 CASE WESTERN RESERVE UNIVERSITY **7783**
BUBBLE GENERATION IN A FLOWING LIQUID MEDIUM & RESULTING TWO-PHASE FLOW IN MICROGRAVITY
 07/10/1996 – 06/30/2000 FY98: \$53,002 Total: \$196,985
Prin. Invest.: Y KAMOTANI, J OSTRACH, J KADAMBI
Tech. Officer: LERC/D F CHAO
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 3 2053 CASE WESTERN RESERVE UNIVERSITY **7784**
EXPERIMENTS AND COMPUTER SIMULATIONS FOR BEARING DYNAMIC STABILITY LIMITS
 05/28/1997 – 01/11/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: M L ADAMS, JR.
Tech. Officer: LERC/D E BREWE
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2096 CASE WESTERN RESERVE UNIVERSITY **7785**
DISTRIBUTED MULTI-SENSORY ELECTRIC FIELD TEMPERATURE & HAZARDOUS GASES DETECTION FOR FIRE PREVENTION
 12/16/1997 – 11/06/1998 FY98: \$17,953 Total: \$17,953
Prin. Invest.: M TABIB-AZAT
Tech. Officer: LERC/G ADAMOVSKY
CASE Category: 45 – ELECTRICAL ENGR

NAG 3 2110 CASE WESTERN RESERVE UNIVERSITY **7786**
NOVEL PIV TECHNIQUE FOR PLANAR PARTICLE SIZE AND VELOCITY MEASUREMENTS FOR SPRAY DIAGNOSTICS
 01/08/1998 – 10/31/2000 FY98: \$75,000 Total: \$75,000
Prin. Invest.: J R KADAMBI
Tech. Officer: LERC/M P WERNET
CASE Category: 99 – MULTIDISCIPLINARY, OTHER

NAG 3 2131 CASE WESTERN RESERVE UNIVERSITY **7787**
EVALUATION OF SUB-SURFACE DAMAGE IN SURFACE PREPARATION OF SiC WAFERS
 02/25/1998 – 09/30/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: P PIROUZ
Tech. Officer: LERC/J A POWELL
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 3 2160 CASE WESTERN RESERVE UNIVERSITY **7788**
STABILITY LIMITS AND DYNAMICS OF NONAXISYMMETRIC LIQUID BRIDGES
 04/24/1998 – 05/31/2000 FY98: \$79,180 Total: \$79,180
Prin. Invest.: I D ALEXANDER
Tech. Officer: LERC/J C DUH, LERC/B S SINGH
CASE Category: 46 – MECHANICAL ENGR

NAG 3 2170 CASE WESTERN RESERVE UNIVERSITY **7789**
MODELING OF ICE INFORMATION ON SWEEP WING LEADING EDGES
 05/29/1998 – 03/25/1999 FY98: \$27,654 Total: \$27,654
Prin. Invest.: E RESHOTKO
Tech. Officer: LERC/M G POTAPCZUK
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2204 CASE WESTERN RESERVE UNIVERSITY **7790**
ESTABLISH THE GLENNAN MICROSYSTEM INITIATIVE ESTABLISH THE GLENNAN MICROSYSTEM INITIATIVE
 09/25/1998 – 11/30/1999 FY98: \$500,000 Total: \$500,000
Prin. Invest.: M MEHREGANY *Prin. Invest.:* NONE
Tech. Officer: LERC/L G MATUS
CASE Category: 45 – ELECTRICAL ENGR

NAG 5 6715 CASE WESTERN RESERVE UNIVERSITY **7791**
AN ELECTRON MICROSCOPY SURVEY OF CARBONATE-BEARING REGIONS OF ALH84001
 12/10/1997 – 11/30/1998 FY98: \$65,000 Total: \$65,000
Prin. Invest.: R HARVEY
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 7019 CASE WESTERN RESERVE UNIVERSITY **7792**
THE EVOLUTION OF GALAXIES HARBORING CENTRAL MASSIVE BLACK HOLES – ATP
 02/19/1998 – 02/14/1999 FY98: \$38,633 Total: \$38,633
Prin. Invest.: C MIHOS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 8 1268 CASE WESTERN RESERVE UNIVERSITY **7793**
DISLOCATION FORMATION DURING GROWTH OF SEMICONDUCTOR CRYSTALS
 05/03/1996 – 05/31/1998 FY98: \$30,000 Total: \$120,000
Prin. Invest.: M KAFOREY
Tech. Officer: MSFC/C R TALLEY
CASE Category: 13 – PHYSICS

NAG 8 1270 CASE WESTERN RESERVE UNIVERSITY **7794**
DETERMINATION OF THE SURFACE ENERGY OF LIQUID CRYSTALS
 05/03/1996 – 05/31/2000 FY98: \$70,000 Total: \$175,001
Prin. Invest.: C ROSENBLATT, P L TAYLOR
Tech. Officer: MSFC/C R TALLEY
CASE Category: 13 – PHYSICS

NAS 8 39722 CASE WESTERN RESERVE UNIVERSITY **7795**
STUDY OF DOPANT SEGREGATION
 04/30/1993 – 12/31/1997 FY98: \$35,000 Total: \$1,057,005
Prin. Invest.: D MATTHIESEN
Tech. Officer: MSFC/F REEVES
CASE Category: 99 – MULTI INTERDISCIPL. OTHER

NCC 3 140 CASE WESTERN RESERVE UNIVERSITY **7796**
THERMOCAPILLARY & ELECTROCAPILLARY EFFECTS IN REDUCED GRAVITY
 05/15/1989 – 07/31/1997 FY98: -\$1,915 Total: \$2,471,142
Prin. Invest.: Y KAMOTANI
Tech. Officer: LERC/R W VERNON
CASE Category: 46 – MECHANICAL ENGR

NCC 3 206 CASE WESTERN RESERVE UNIVERSITY **7797**
IGNITION & FLAME SPREAD OF LIQUID FUEL POOLS
 02/14/1991 – 03/31/1997 FY98: -\$19 Total: \$659,183
Prin. Invest.: J S TIEN
Tech. Officer: LERC/H D ROSS
CASE Category: 46 – MECHANICAL ENGR

NCC 3 263 CASE WESTERN RESERVE UNIVERSITY **7798**
FLOW VISUALIZATION OF BLADE ROW INTERACTION
 05/08/1992 – 07/13/1998 FY98: \$20,599 Total: \$178,171
Prin. Invest.: J R KADAMBF
Tech. Officer: LERC/J J ADAMCZYK, LERC/R J BOYLE
CASE Category: 41 – AERONAUTICAL ENGR

NCC 3 275 CASE WESTERN RESERVE UNIVERSITY **7799**
NUMERICAL STUDIES OF PHASE TRANSITION PHENOMENA IN MICROGRAVITY
 07/02/1992 – 08/16/1997 FY98: -\$119 Total: \$354,522
Prin. Invest.: V K PINES
Tech. Officer: LERC/A CHAIT
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 293 CASE WESTERN RESERVE UNIVERSITY **7800**
DIFFUSION PROCESSES IN MOLTEN SEMICONDUCTORS
 01/13/1993 – 05/24/1998 FY98: \$0 Total: \$758,612
Prin. Invest.: D MATTHIESEN
Tech. Officer: LERC/T K GLASGOW, LERC/C R KROLIKOWSKI
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 294 CASE WESTERN RESERVE UNIVERSITY **7801**
ELECTRICAL CHARACTERIZATION OF SiC ELECTRIC DEVICES
 01/25/1993 – 12/31/1996 FY98: -\$331 Total: \$97,385
Prin. Invest.: M TABIB-AZAR
Tech. Officer: LERC/P G NEUDECK
CASE Category: 45 – ELECTRICAL ENGR

NCC 3 331 CASE WESTERN RESERVE UNIVERSITY **7802**
FATIGUE CRACK GROWTH OF ADVANCED MATERIALS
 11/29/1993 – 11/30/1997 FY98: -\$4,273 Total: \$443,959
Prin. Invest.: R L MULLEN, L T GHOSH
Tech. Officer: LERC/J J TELESMA
CASE Category: 46 – MECHANICAL ENGR

NCC 3 350 CASE WESTERN RESERVE UNIVERSITY **7803**
CANDLE FLAMES IN MICROGRAVITY
 06/03/1994 – 12/31/1998 FY98: \$0 Total: \$308,150
Prin. Invest.: J S TIEN
Tech. Officer: LERC/H D ROSS
CASE Category: 46 – MECHANICAL ENGR

NCC 3 372 CASE WESTERN RESERVE UNIVERSITY **7804**
A STUDY OF THE MECHANICAL PROPERTIES OF DIRECTIONALLY SOLIDIFIED & CHARACTERIZATION OF HIGH TEMPERATURE MATERIALS
 11/15/1994 – 10/11/1999 FY98: \$201,114 Total: \$860,606
Prin. Invest.: A SAYIR
Tech. Officer: LERC/J A DICARLO, LERC/S R LEVINE
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 377 CASE WESTERN RESERVE UNIVERSITY **7805**
IMPROVED PROCESSING OF HIGH TEMPERATURE COMPOSITE SYSTEMS
 12/08/1994 – 06/10/1997 FY98: -\$150 Total: \$280,110
Prin. Invest.: C N SUKENIK
Tech. Officer: LERC/M A MEADOR
CASE Category: 12 – CHEMISTRY

NCC 3 384 CASE WESTERN RESERVE UNIVERSITY **7806**
EVALUATION OF THE LONG TERM DURABILITY OF MATERIALS FOR ADVANCED TURBINE ENGINES
 03/24/1995 – 11/10/1998 FY98: \$103,876 Total: \$379,704
Prin. Invest.: G M MICHAL
Tech. Officer: LERC/R V MINER, LERC/M V NATHAL
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 389 CASE WESTERN RESERVE UNIVERSITY **7807**
PROCESSING, STRUCTURES AND PROPERTIES OF ADVANCED INTERMETALLICS AND METAL MATRIX COMPOSITES
 01/10/1995 – 11/10/1998 FY98: \$173,572 Total: \$676,812
Prin. Invest.: G M MICHAL, I E LOCCI
Tech. Officer: LERC/M V NATHAL
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 404 CASE WESTERN RESERVE UNIVERSITY **7808**
CERAMIC PROCESSING
 03/13/1995 – 11/23/1998 FY98: \$307,365 Total: \$1,006,627
Prin. Invest.: J CAWLEY
Tech. Officer: LERC/S LEVINE
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 409 CASE WESTERN RESERVE UNIVERSITY **7809**
THE DEVELOPMENT OF A NOVEL CLASS OF RETAINERLESS UNIDIRECTIONAL-FIBER COMPOSITE MOMENTUM WHEELS
 04/01/1995 – 02/23/1998 FY98: \$0 Total: \$191,788
Prin. Invest.: J M I'RAHL
Tech. Officer: LERC/W R JONES, LERC/M V ZELLER
CASE Category: 46 – MECHANICAL ENGR

NCC 3 460 CASE WESTERN RESERVE UNIVERSITY **7810**
STUDIES AND APPLICATIONS OF COLLOIDAL PHENOMENA USING LASER LIGHT SCATTERING IN REDUCED GRAVITY
 03/25/1996 – 06/30/1998 FY98: \$0 Total: \$201,951
Prin. Invest.: J A KANN JR., R R ANSARI
Tech. Officer: LERC/J S SINGH
CASE Category: 9 – ENGINEERING, OTHER

NCC 3 463 CASE WESTERN RESERVE UNIVERSITY **7811**
MONOLITHIC CU-CR-NB ALLOYS FOR ELEVATED TEMPERATURE HIGH
HEAT FLUX APPLICATIONS
 04/10/1996 – 11/30/1998 FY98: \$70,795 Total: \$198,837
Prin. Invest.: G M MICHAL, D L ELLIS
Tech. Officer: LERC/R V MINER, LERC/M V NATHAL
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 464 CASE WESTERN RESERVE UNIVERSITY **7812**
THE ROLE OF FIBER-ARCHITECTURE ON THE MECHANICAL PROPERTIES
OF TITANIUM MATRIX COMPOSITES
 04/11/1996 – 03/23/1999 FY98: \$77,546 Total: \$163,121
Prin. Invest.: R M AIKEN, JR.
Tech. Officer: LERC/S M ARNOLD
CASE Category: 41 – AERONAUTICAL ENGR

NCC 3 498 CASE WESTERN RESERVE UNIVERSITY **7813**
MODELING OF ICE FORMATION ON SWEEP WING LEADING EDGES
 09/04/1996 – 06/03/1997 FY98: \$0 Total: \$25,000
Prin. Invest.: E RESHOTKO
Tech. Officer: LERC/M G POTHPCZUK
CASE Category: 41 – AERONAUTICAL ENGR

NCC 3 500 CASE WESTERN RESERVE UNIVERSITY **7814**
MICROGRAVITY COMBUSTION SCIENCE RESEARCH & FLIGHT EXPERI-
MENT OPPORTUNITIES
 09/04/1996 – 08/31/1997 FY98: –\$38,893 Total: \$56,077
Prin. Invest.: F J MILLER, H D ROSS, J S TIEN
Tech. Officer: LERC/J A SALZMAN
CASE Category: 46 – MECHANICAL ENGR

NCC 3 510 CASE WESTERN RESERVE UNIVERSITY **7815**
ELECTRICAL CHARACTERIZATION OF MICROPIPES & OTHER DEFECTS IN
SIC AND GAN USING ELECTRON BEAM INDUCED
 10/30/1996 – 10/31/1997 FY98: –\$2,719 Total: \$20,486
Prin. Invest.: M TABIB-AZAR
Tech. Officer: LERC/S G BAILEY
CASE Category: 13 – PHYSICS

NCC 3 518 CASE WESTERN RESERVE UNIVERSITY **7816**
A STUDY OF THE TIME-DEPENDENT RESPONSE OF CERAMIC MATERIALS
 01/06/1997 – 10/31/1998 FY98: \$92,449 Total: \$177,428
Prin. Invest.: D A GASPARINI, V PANOSTALTSIS
Tech. Officer: LERC/N N NEMTH
CASE Category: 46 – MECHANICAL ENGR

NCC 3 525 CASE WESTERN RESERVE UNIVERSITY **7817**
THE EFFECTS OF GROWTH CONDITIONS ON THE FRETTING BEHAVIOR OF
DIAMONDLIKE CARBON FILMS
 01/06/1997 – 10/31/1997 FY98: \$0 Total: \$29,999
Prin. Invest.: P W MORRISON, JR.
Tech. Officer: LERC/K MIYOAH, LERC/M V ZELLER
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 533 CASE WESTERN RESERVE UNIVERSITY **7818**
SURFACE LIGHT SCATTERING INSTRUMENT
 01/17/1997 – 07/09/1997 FY98: –\$227 Total: \$34,773
Prin. Invest.: J MANN, JR., D HUMPHREY, N C GARDNER
Tech. Officer: LERC/T K GLASGOW
CASE Category: 43 – CHEMICAL ENGR

NCC 3 554 CASE WESTERN RESERVE UNIVERSITY **7819**
TIME DEPENDENT NUMERICAL SIMULATIONS OF SOLIDIFICATION PRO-
CESSES
 04/21/1997 – 02/24/1999 FY98: \$0 Total: \$83,906
Prin. Invest.: P L TAYLOR, G Y ONR
Tech. Officer: LERC/A CHAIT
CASE Category: 13 – PHYSICS

NCC 3 556 CASE WESTERN RESERVE UNIVERSITY **7820**
THE DEVELOPMENT OF A HIGH TEMPERATURE NOX SENSOR USING TIN
OXIDE BASED & MOS BASED DEVICES
 04/23/1997 – 10/13/1997 FY98: \$0 Total: \$55,000
Prin. Invest.: C C LIU
Tech. Officer: LERC/G HUNTER
CASE Category: 43 – CHEMICAL ENGR

NCC 3 562 CASE WESTERN RESERVE UNIVERSITY **7821**
IGNITION AND FLAME SPREAD OF LIQUID FUEL POOLS
 06/17/1997 – 05/12/2001 FY98: \$0 Total: \$114,456
Prin. Invest.: J S TIEN
Tech. Officer: LERC/J A SALZMAN
CASE Category: 46 – MECHANICAL ENGR

NCC 3 566 CASE WESTERN RESERVE UNIVERSITY **7822**
DEVELOPMENT OF A SOLID-STATE AMPERMETRIC HIGH TEMPERATURE
OXYGEN SENSOR
 07/01/1997 – 09/12/1997 FY98: \$0 Total: \$35,000
Prin. Invest.: C C LIU
Tech. Officer: LERC/G W HUNTER
CASE Category: 43 – CHEMICAL ENGR

NCC 3 574 CASE WESTERN RESERVE UNIVERSITY **7823**
A PROPOSED RESEARCH ON THE DEVELOPMENT OF COMBINED
SCHOTKY DIODE & RESISTANCE BASED HYDROGEN SENSORS
 08/25/1997 – 12/07/1997 FY98: –\$1 Total: \$79,999
Prin. Invest.: C C LIU
Tech. Officer: LERC/G W HUNTER
CASE Category: 43 – CHEMICAL ENGR

NCC 3 583 CASE WESTERN RESERVE UNIVERSITY **7824**
FATIGUE CRACK GROWTH OF ADVANCED MATERIALS FATIGUE CRACK
GROWTH OF ADVANCED MATERIALS
 12/16/1997 – 12/01/1998 FY98: \$123,244 Total: \$123,244
Prin. Invest.: R MULLEN
Tech. Officer: LERC/I TELESMA
CASE Category: 46 – MECHANICAL ENGR

NCC 3 587 CASE WESTERN RESERVE UNIVERSITY **7825**
TIME DEPENDENT NUMERICAL SIMULATIONS OF SOLIDIFICATION PRO-
CESSES
 01/01/1998 – 12/31/2000 FY98: \$87,373 Total: \$87,373
Prin. Invest.: P L TAYLOR
Tech. Officer: LERC/A CHIT
CASE Category: 13 – PHYSICS

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| NCC 3 593 CASE WESTERN RESERVE UNIVERSITY 7826 ELECTRICAL CHARACTERIZATION OF MICROPIPERES AND OTHER DEFECTS IN SIC AND GAN USING ELECTRON BEAM INDU 01/08/1998 – 11/30/1998 FY98: \$6,890 Total: \$6,890 Prin. Invest.: M TABIB-AZAR Tech. Officer: LERC/S BAILEY CASE Category: 45 – ELECTRICAL ENGR | NGT 90177 CASE WESTERN RESERVE UNIVERSITY 7834 UNDERGRADUATE STUDENT RESEARCHERS PROGRAM 08/27/1993 – 07/15/1997 FY98: -\$2,774 Total: \$33,226 Prin. Invest.: M EOULDING Tech. Officer: HQ/D RUSSELL CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NCC 3 612 CASE WESTERN RESERVE UNIVERSITY 7827 DEVELOPMENT OF SOLID STATE CO AND CO2 SENSORS FOR FIRE PROTECTION APPLICATIONS 05/08/1998 – 09/30/1998 FY98: \$24,999 Total: \$24,999 Prin. Invest.: C C LIU Tech. Officer: LERC/G W HUNTER CASE Category: 43 – CHEMICAL ENGR | NGT 3 52323 CASE WESTERN RESERVE UNIVERSITY 7835 GRADUATE STUDENT RESEARCHERS PROGRAM 09/04/1996 – 12/11/1998 FY98: \$0 Total: \$44,000 Prin. Invest.: I GFEBER Tech. Officer: LEHC/F MONTEGANI CASE Category: 46 – MECHANICAL ENGR |
| NCC 3 625 CASE WESTERN RESERVE UNIVERSITY 7828 DEVELOPMENT OF NOVEL CLASS OF RETAINERLESS/UNIDIRECTIONAL FIBER COMPOSITE MOMENTUM WHEELS 06/17/1998 – 01/21/1999 FY98: \$63,164 Total: \$63,164 Prin. Invest.: J M PRAHL Tech. Officer: LERC/C DELLACORTE CASE Category: 46 – MECHANICAL ENGR | NGT 3 52328 CASE WESTERN RESERVE UNIVERSITY 7836 GRADUATE STUDENT RESEARCHERS PROGRAM 06/10/1997 – 09/01/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: K LC PARO Tech. Officer: LEHC/F J MONTEGANI CASE Category: 49 – ENGINEERING, OTHER |
| NCC 3 633 CASE WESTERN RESERVE UNIVERSITY 7829 COMBUSTION OF SOLID FUEL IN VERY LOW SPEED OXYGEN STREAMS 06/30/1998 – 04/30/2000 FY98: \$107,710 Total: \$107,710 Prin. Invest.: J S TIEN Tech. Officer: LERC/K SACKSTEDER CASE Category: 46 – MECHANICAL ENGR | NGT 3 52340 CASE WESTERN RESERVE UNIVERSITY 7837 PIV DEVELOPMENT FOR SIMULTANEOUS MEASUREMENT OF PARTICLE/DROPLET SIZE AND VELOCITY IN TWO PHASE FLOW 07/18/1998 – 07/31/1999 FY98: \$22,000 Total: \$22,000 Prin. Invest.: J R ADAMBI Tech. Officer: LERC/D MONTEGANI CASE Category: 46 – MECHANICAL ENGR |
| NCC 3 635 CASE WESTERN RESERVE UNIVERSITY 7830 ELECTRICAL CHARACTERIZATION OF MICROPIPERES AND OTHER DEFECTS IN SIC AND GAN USING ELECTRON BEAM INDU 07/18/1998 – 06/24/1999 FY98: \$28,540 Total: \$28,540 Prin. Invest.: D TABIB-AZAR Tech. Officer: LERC/S BAILEY CASE Category: 47 – METAL & MATERIALS ENGR | NGT 5 50064 CASE WESTERN RESERVE UNIVERSITY 7838 STEADY STATE COMBUSTION OF SIMULATED DROPLETS 08/28/1997 – 06/30/1998 FY98: \$0 Total: \$22,000 Prin. Invest.: D DITN Tech. Officer: HQ/J. NURRIDIN CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NCC 8 152 CASE WESTERN RESERVE UNIVERSITY 7831 DIFFUSION PROCESSES IN MOLTEN SEMICONDUCTORS 06/12/1998 – 03/31/2002 FY98: \$493,110 Total: \$493,110 Prin. Invest.: D H MATTHIESEN Tech. Officer: MSFC/J BRUNSON CASE Category: 13 – PHYSICS | NGT 5 90056 CASE WESTERN RESERVE UNIVERSITY 7839 UNDERGRADUATE STUDENT AWARD FOR RESEARCH 02/12/1997 – 08/14/1997 FY98: \$0 Total: \$12,000 Prin. Invest.: M BOJLDING Tech. Officer: GSF/JR LAWRENCE CASE Category: 43 – CHEMICAL ENGR |
| NGT 51357 CASE WESTERN RESERVE UNIVERSITY 7832 GRADUATE STUDENT RESEARCHERS PROGRAM 08/08/1994 – 12/31/1997 FY98: \$0 Total: \$66,000 Prin. Invest.: D H MATTHIESEN Tech. Officer: HQ/G A LESANE CASE Category: 47 – METAL & MATERIALS ENGR | NGT 8 52832 CASE WESTERN RESERVE UNIVERSITY 7840 GRAD STUDENT RESEARCHERS PROGRAM FOR GABRIEL M. NELSON 09/20/1996 – 08/23/1997 FY98: -\$3,164 Total: \$18,836 Prin. Invest.: G M NELSON Tech. Officer: MSFC/JR HOWARD CASE Category: 46 – MECHANICAL ENGR |
| NGT 70407 CASE WESTERN RESERVE UNIVERSITY 7833 GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF) 12/05/1994 – 12/31/1997 FY98: -\$10,327 Total: \$33,673 Prin. Invest.: S PHILIPS Tech. Officer: HQ/D K RUSSELL CASE Category: 45 – ELECTRICAL ENGR | NGT 9 15 CASE WESTERN RESERVE UNIVERSITY 7841 SUMMER FACULTY FELLOWSHIP 09/24/1996 – 03/30/1998 FY98: \$0 Total: \$15,000 Prin. Invest.: R P H RVEY Tech. Officer: JSC/E PRITCHARD CASE Category: 31 – ATMOSPHERIC SCIENCE |

NAG 3 1463 CENTRAL STATE UNIVERSITY - OHIO **7842**
A STUDY OF EVAPORATION FROM A BINARY MENISCUS IN MICROGRAVITY
 03/04/1993 - 08/31/1998 FY98: \$0 Total: \$678,475
Prin. Invest.: M M GIRGIS
Tech. Officer: LERC/J A SALZMAN, LERC/R L THOMPSON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1787 CENTRAL STATE UNIVERSITY - OHIO **7843**
DEVELOPMENT OF SEARCHABLE DATABASE ON GENERAL AVIATION PROPULSION
 09/12/1995 - 07/31/1997 FY98: \$0 Total: \$169,957
Prin. Invest.: D A IKOMI, G T NOEL
Tech. Officer: LERC/C E COLE-HAMILTON
CASE Category: 41 - AERONAUTICAL ENGR

NAGW 4077 CENTRAL STATE UNIVERSITY - OHIO **7844**
EARTH TO LOS ANGELES
 07/08/1994 - 05/31/1997 FY98: \$0 Total: \$1,034,195
Prin. Invest.: D J LOVE
Tech. Officer: HQ/B L WHITE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 3 27790 CENTRAL STATE UNIVERSITY - OHIO **7845**
DIAMOND LIKE CARBON COATINGS FOR HIGH TEMPERATURE LUBRICANT APPLICATIONS
 11/07/1995 - 07/31/1998 FY98: \$20 Total: \$50,020
Prin. Invest.: A RENGAN
Tech. Officer: LERC/D MIYPSHI
CASE Category: 12 - CHEMISTRY

NAG 3 1216 CLEVELAND STATE UNIVERSITY **7846**
A STUDY OF TIME DEPENDENT RESPONSE OF CERAMIC MATERIALS
 12/05/1990 - 08/31/1997 FY98: \$0 Total: \$473,248
Prin. Invest.: J H HEMANN
Tech. Officer: LERC/J P GYKENYESI, LERC/J M MANDERSCHIED
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 3 1379 CLEVELAND STATE UNIVERSITY **7847**
A RATE-ADJUSTING CONGESTION CONTROL SCHEME FOR SATELLITE PACKET SWITCHING NETWORK
 11/04/1992 - 07/18/1998 FY98: \$0 Total: \$189,228
Prin. Invest.: P CHU
Tech. Officer: LERC/H KIM
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1756 CLEVELAND STATE UNIVERSITY **7848**
THERMAL ANALYSES FOR MELTING AND FREEZING OF MATERIALS IN A METALLIC CANISTER
 06/14/1995 - 06/30/1998 FY98: \$0 Total: \$53,720
Prin. Invest.: M IBRAHIMI, G CHROMIK
Tech. Officer: LERC/C M TOLBERT, LERC/K W BAKER
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1772 CLEVELAND STATE UNIVERSITY **7849**
MINORITY ENGINEERING PROGRAMS PIPELINE - A PROPOSAL TO INCREASE MINORITY STUDENT ENROLLMENT & RETENTION
 07/26/1995 - 09/06/1997 FY98: \$304 Total: \$31,076
Prin. Invest.: P C CHARITY
Tech. Officer: LERC/J E BOYD
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NAG 3 1922 CLEVELAND STATE UNIVERSITY **7850**
TWO-PHASE ANNUAL FLOW IN HELICAL COIL FLOW CHANNELS IN A REDUCED GRAVITY ENVIRONMENT
 07/23/1996 - 07/16/1999 FY98: \$67,000 Total: \$280,000
Prin. Invest.: E G KESHOCK, C S LIN
Tech. Officer: LERC/B J MOTIL
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2029 CLEVELAND STATE UNIVERSITY **7851**
DEVELOPMENT OF AN OPTIMIZED MULTIDISCIPLINARY SYSTEM DESIGN TOOL USING TAGUCHI TECHNIQUES & NEURAL NETWORKS
 04/01/1997 - 04/27/1999 FY98: \$62,000 Total: \$102,000
Prin. Invest.: P P LIN
Prin. Invest.: NONE
Tech. Officer: LERC/K JULES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2040 CLEVELAND STATE UNIVERSITY **7852**
FPGA BASED RECONFIGURABLE PACKET SWITCH TEST BED
 04/29/1997 - 07/31/1999 FY98: \$20,000 Total: \$79,521
Prin. Invest.: P P CHU
Tech. Officer: LERC/R E JONES
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2075 CLEVELAND STATE UNIVERSITY **7853**
MINORITY ENGINEERING PROGRAM PIPELINE
 09/17/1997 - 08/31/1999 FY98: \$21,870 Total: \$35,670
Prin. Invest.: P CHARITY
Tech. Officer: LERC/M L BOROWSKI
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NAG 3 2144 CLEVELAND STATE UNIVERSITY **7854**
DEVELOPMENT OF ADVANCED SPACE SOLAR CELLS DEVELOPMENT OF ADVANCED SPACE SOLAR CELLS
 04/21/1998 - 07/07/2001 FY98: \$50,000 Total: \$50,000
Prin. Invest.: M FAUR
Tech. Officer: LERC/S G BAILEY
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2197 CLEVELAND STATE UNIVERSITY **7855**
INVESTIGATION IN THE USE OF ULTRASONICS FOR THE DETERMINATION OF ICE THICKNESS ON AIRCRAFT STRUCTURES
 09/04/1998 - 11/30/1998 FY98: \$21,270 Total: \$21,270
Prin. Invest.: P A BOSEIA
Tech. Officer: LERC/D R LUDWICZAK
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 299 CLEVELAND STATE UNIVERSITY **7856**
MACROSEGREGATION IN DIRECTIONALLY SOLIDIFIED Pb-Sn ALLOYS
 05/27/1993 - 10/17/1997 FY98: \$1 Total: \$206,195
Prin. Invest.: S TEWARI
Tech. Officer: LERC/A CHAIT
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 304 CLEVELAND STATE UNIVERSITY **7857**
ULTRASONIC SCANNER CONTROL & DATA ACQUISITION
 05/05/1993 - 10/31/1997 FY98: \$0 Total: \$372,937
Prin. Invest.: J HEMANN
Tech. Officer: LERC/G Y BAAKLINI
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 305 CLEVELAND STATE UNIVERSITY **7858**
AN INVESTIGATION OF RELIABILITY MODELS FOR CERAMIC MATRIX
COMP & THEIR IMPL INTO FINITE ELEM CODES
 06/29/1993 – 06/30/1998 FY98: -\$15,162 Total: \$214,876
Prin. Invest.: S DUFFY
Tech. Officer: LERC/N NEMETH
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 316 CLEVELAND STATE UNIVERSITY **7859**
NON-DESTRUCTIVE EVALUATION OF ADVANCED MATERIALS FOR HEAT
ENGINE & SPACE STRUCTURE APPLICATIONS
 08/20/1993 – 11/07/1998 FY98: \$0 Total: \$79,606
Prin. Invest.: J HEMANN
Tech. Officer: LERC/A VARY
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 334 CLEVELAND STATE UNIVERSITY **7860**
THE DEVELOPMENT OF ENGINEERING TOMOGRAPHY
 12/23/1993 – 10/31/1997 FY98: \$1 Total: \$345,315
Prin. Invest.: J H HEMANN
Tech. Officer: LERC/G Y BAAKLINI, LERC/A VARY
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 367 CLEVELAND STATE UNIVERSITY **7861**
A HIGH TEMPERATURE TESTING SYSTEM FOR CERAMIC COMPOSITES
 11/01/1994 – 08/30/1998 FY98: \$19,060 Total: \$389,009
Prin. Invest.: J HEMANN
Tech. Officer: LERC/F HURWITZ
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 376 CLEVELAND STATE UNIVERSITY **7862**
DONE
 12/15/1994 – 11/30/1998 FY98: \$134,000 Total: \$519,600
Prin. Invest.: J MASNOVI
Tech. Officer: LERC/F HURWITZ
CASE Category: 12 – CHEMISTRY

NCC 3 393 CLEVELAND STATE UNIVERSITY **7863**
DEVELOPMENT EVALUATION AND MODELING OF ADVANCED CERAMIC
FIBERS FOR HIGH TEMPERATURE COMPOSITES
 01/23/1995 – 02/28/1999 FY98: \$108,524 Total: \$392,366
Prin. Invest.: S N TEWARI *Prin. Invest.:* NONE
Tech. Officer: LERC/R V MINER
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 415 CLEVELAND STATE UNIVERSITY **7864**
DESIGN ANALYSIS AND MATERIAL MODELING FOR CERAMIC MATRIX
COMPOSITES
 05/23/1995 – 06/15/1998 FY98: -\$21,971 Total: \$243,018
Prin. Invest.: S F DUFFY
Tech. Officer: LERC/N N NEMETH
CASE Category: 46 – MECHANICAL ENGR

NCC 3 428 CLEVELAND STATE UNIVERSITY **7865**
PROTEIN CRYSTAL GROWTH AND TRANSPORT PHENOMENA
 08/24/1995 – 11/14/1998 FY98: \$72,915 Total: \$215,015
Prin. Invest.: S N TEWARI
Tech. Officer: LERC/T K GLASGOW
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 433 CLEVELAND STATE UNIVERSITY **7866**
ANALYSIS OF THE USE OF SELECTED MODERN INDUSTRIAL METHODS
AND PROCESSES IN THE SCIENTIFIC ENVIRONMENT
 09/24/1995 – 09/30/1998 FY98: \$84,150 Total: \$245,167
Prin. Invest.: D L KRAJEVICH
Tech. Officer: LERC/J M MULLINS
CASE Category: 46 – MECHANICAL ENGR

NCC 3 444 CLEVELAND STATE UNIVERSITY **7867**
COATINGS FOR CERAMIC MATRIX COMPOSITES
 01/15/1996 – 12/14/1998 FY98: \$107,113 Total: \$314,405
Prin. Invest.: S N TEWARI
Tech. Officer: LERC/L A GREENBAUER-SENG
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 445 CLEVELAND STATE UNIVERSITY **7868**
MODIFICATION OF ENVIRONMENTAL/THERMAL BARRIER COATINGS FOR
SILICON-BASED CERAMICS
 01/15/1996 – 12/13/1998 FY98: \$116,619 Total: \$346,268
Prin. Invest.: S N TEWARI
Tech. Officer: LERC/L A GREENBAUER-SENG
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 447 CLEVELAND STATE UNIVERSITY **7869**
APPLICATION OF AEROELASTIC SOLVERS BASED ON EULER-NAIVER
STOKES EQUATIONS
 01/22/1996 – 10/31/1997 FY98: -\$15,922 Total: \$153,296
Prin. Invest.: S DUFFY
Tech. Officer: LERC/N NEMETH
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 462 CLEVELAND STATE UNIVERSITY **7870**
APPLICATION OF THEOETHER FOR VAPOR PHASE LUBICATION
 04/09/1996 – 04/01/1997 FY98: -\$2,132 Total: \$14,868
Prin. Invest.: E E CRAHAM
Tech. Officer: LERC/W MORALES
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 486 CLEVELAND STATE UNIVERSITY **7871**
SPACE ENVIRONMENTALITY & PHYS PROP OF NEW MATS FOR SPACE POWER
& COMMERCIAL APPL
 07/08/1996 – 07/01/1997 FY98: -\$64 Total: \$37,566
Prin. Invest.: D D F AMBOURGER
Tech. Officer: LERC/S K RUTLEDGE
CASE Category: 13 – PHYSICS

NCC 3 488 CLEVELAND STATE UNIVERSITY **7872**
DESIGN LIFE MECH & COMP ALGOR FOR THE ANALY OF COMP FAB FROM
CERAMIC BASED MATERIAL SYSTEMS
 07/16/1996 – 11/23/1998 FY98: \$59,199 Total: \$163,335
Prin. Invest.: S F DUFFY
Tech. Officer: LERC/N N NEMETH
CASE Category: 46 – MECHANICAL ENGR

NCC 3 499 CLEVELAND STATE UNIVERSITY **7873**
HIGH TEMPERATURE MECHANICAL BEHAVIOR OF CERAMIC MATRIX COM-
POSITES
 09/04/1996 – 11/30/1998 FY98: \$171,344 Total: \$477,994
Prin. Invest.: J HEMANN
Tech. Officer: LERC/J SALEM
CASE Category: 46 – MECHANICAL ENGR

NCC 3 507 CLEVELAND STATE UNIVERSITY **7874**
SPECIALISED TECHNICAL ASSISTANCE IN STUDIES OF MICROGRAVITY
TWO-PHASE FLOW AND CAPILLARY PUMPED LOOP
 10/09/1996 – 04/08/1997 FY98: \$0 Total: \$6,177
Prin. Invest.: E KESHOCK
Tech. Officer: LERC/B S SINGH
CASE Category: 46 – MECHANICAL ENGR

NCC 3 519 CLEVELAND STATE UNIVERSITY **7875**
EXPERIMENTAL AND ANALYTICAL FATIGUE STUDIES OF POLYMER
MATRIX COMPOSITES
 12/26/1996 – 02/15/1998 FY98: \$0 Total: \$75,232
Prin. Invest.: J HEMANN
Tech. Officer: LERC/J R ELLIS
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 521 CLEVELAND STATE UNIVERSITY **7876**
THE EFFECTS OF MULTIPLE SCATTERING IN PHOTON CORRELATION
SPECTROSCOPY
 12/26/1996 – 11/30/2000 FY98: \$70,000 Total: \$144,000
Prin. Invest.: J A LOCK
Tech. Officer: LERC/A CHAIT
CASE Category: 13 – PHYSICS

NCC 3 522 CLEVELAND STATE UNIVERSITY **7877**
NOVEL MATERIALS WITH TAILORING CHARACTERISTICS FOR SPACE
POWER AND COMMERCIAL APPLICATIONS
 12/26/1996 – 12/02/1999 FY98: \$98,336 Total: \$163,060
Prin. Invest.: P D HAMBOURGER
Tech. Officer: LERC/S K RUTLEDGE
CASE Category: 13 – PHYSICS

NCC 3 536 CLEVELAND STATE UNIVERSITY **7878**
ULTRA-LOW-COST ROOM TEMPERATURE SIC THIN FILM
 01/27/1997 – 12/31/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: C GORADIA
Tech. Officer: LERC/S G BAILEY
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 572 CLEVELAND STATE UNIVERSITY **7879**
PERFORMANCE ANALYSIS OF DISTRIBUTED OBJECT-ORIENTED
APPLICATIONS
 08/05/1997 – 03/31/1999 FY98: \$38,996 Total: \$81,416
Prin. Invest.: J SCOEFFER
Tech. Officer: LERC/G FOLLEN
CASE Category: 22 – COMPUTER SCIENCE

NCC 3 573 CLEVELAND STATE UNIVERSITY **7880**
APPLICATION OF AN IRON ADDITIVE IN THIO-ETHER FOR ENHANCED
VAPOR PHASE LUBRICATION
 09/09/1997 – 03/19/1998 FY98: \$5,000 Total: \$20,000
Prin. Invest.: E D GRAHAM
Tech. Officer: LERC/W MORALES
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 581 CLEVELAND STATE UNIVERSITY **7881**
ULTRASONIC SCANNER CONTROL AND DATA ACQUISITION
 12/09/1997 – 11/03/1998 FY98: \$96,464 Total: \$96,464
Prin. Invest.: J HEMANN
Tech. Officer: LERC/H KAUTZ
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 582 CLEVELAND STATE UNIVERSITY **7882**
THE DEVELOPMENT OF ENGINEERING TOMOGRAPHY FOR MONOLITHIC
AND COMPOSITE MATERIALS AND COMPONENTS
 12/09/1997 – 11/03/1998 FY98: \$89,755 Total: \$89,755
Prin. Invest.: J HEMANN
Tech. Officer: LERC/H E KAUTZ
CASE Category: 49 – ENGINEERING, OTHER

NCC 3 585 CLEVELAND STATE UNIVERSITY **7883**
NDE METHODS FOR COMMERCIAL AIRCRAFT ENGINES
 12/16/1997 – 11/13/1998 FY98: \$94,081 Total: \$94,081
Prin. Invest.: J HEMANN
Tech. Officer: LERC/L KIRALY
CASE Category: 41 – AERONAUTICAL ENGR

NCC 3 595 CLEVELAND STATE UNIVERSITY **7884**
SIMULATION AND PERFORMANCE ANALYSIS OF HYBRID SATELLITE-TER-
RESTRIAL NETWORKS
 01/12/1998 – 12/31/1998 FY98: \$58,360 Total: \$58,360
Prin. Invest.: V K KONANGI
Tech. Officer: LERC/T M WALLETT, LERC/K B BHASIN
CASE Category: 45 – ELECTRICAL ENGR

NCC 3 606 CLEVELAND STATE UNIVERSITY **7885**
ULTRA-LOW COST ROOM TEMPERATURE SIC THIN FILMS ULTRA-LOW
COST ROOM TEMPERATURE SIC THIN FILMS
 04/20/1998 – 01/03/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: M FAUR
Tech. Officer: LERC/S BAILEY
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 631 CLEVELAND STATE UNIVERSITY **7886**
STUDY OF MAGNETIC DAMPING EFFECTS ON CONVECTION DURING
DIRECTIONAL SOLIDIFICATION
 06/26/1998 – 05/04/1999 FY98: \$42,720 Total: \$42,720
Prin. Invest.: D N TEWARI
Tech. Officer: LERC/H C DE GROH
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 644 CLEVELAND STATE UNIVERSITY **7887**
IN-SITU SPECTROSCOPIC EXAMINATION OF MODEL LURICAN TSSYS-
TEMS AT HIGH PRESSURE
 08/01/1998 – 07/31/1999 FY98: \$5,900 Total: \$5,900
Prin. Invest.: D W BALL
Tech. Officer: LERC/W MORALES
CASE Category: 43 – CHEMICAL ENGR

NCC 3 646 CLEVELAND STATE UNIVERSITY **7888**
ANALYSIS FOR A NEW GUST GENERATOR FOR SUPERSONIC WIND TUN-
NELS
 09/03/1998 – 05/31/1999 FY98: \$11,000 Total: \$11,000
Prin. Invest.: M B IBRAHIM
Tech. Officer: LERC/K J MELCHER
CASE Category: 41 – AERONAUTICAL ENGR

NCC 3 647 CLEVELAND STATE UNIVERSITY **7889**
THE STUDY OF THE APPLICATION OF MODERN METHODS OF CONTROL
AND INTERFACE TO SCIENTIFIC EFFORTS
 09/04/1998 – 09/30/2001 FY98: \$10,000 Total: \$10,000
Prin. Invest.: G L KRAMERICH
Tech. Officer: LERC/J M MULLINS
CASE Category: 49 – ENGINEERING, OTHER

NGT 70396 CLEVELAND STATE UNIVERSITY **7890**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMF)
 09/13/1994 – 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: S MISRA
Tech. Officer: HQ/D RUSSELL
CASE Category: 22 – COMPUTER SCIENCE

NAG 8 1433 COLLEGE OF WOOSTER **7891**
TURBIDITY AND UNIVERSALITY AROUND A LIQUID-LIQUID CRITICAL POINT
 02/06/1998 – 01/31/2003 FY98: \$40,000 Total: \$40,000
Prin. Invest.: D T JACOBS
Tech. Officer: MSFC/J W POE
CASE Category: 13 – PHYSICS

NAG 3 1666 CUYAHOGA COMMUNITY COLLEGE **7892**
SCIENCE & MATH PIPELINE
 10/01/1994 – 09/30/1997 FY98: -\$1 Total: \$81,899
Prin. Invest.: J L JEFFERSON
Tech. Officer: LERC/J STORTO
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 3 1711 CUYAHOGA COMMUNITY COLLEGE **7893**
CENTER FOR URBAN EXCELLANCE – SCIENCE, ENGINEERING MATHEMATICS, AND AEROSPACE ACADEMY (SEMMA)
 02/21/1995 – 09/30/1998 FY98: \$0 Total: \$1,598,600
Prin. Invest.: C JOHNSON
Tech. Officer: LERC/R L BONDURANT
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 3 1778 CUYAHOGA COMMUNITY COLLEGE **7894**
MENTOR INTERSHIP PARTNERSHIP PROGRAM
 08/16/1995 – 08/15/1999 FY98: \$21,714 Total: \$76,605
Prin. Invest.: R L MOSS
Tech. Officer: LERC/F H YARRIS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 2038 CUYAHOGA COMMUNITY COLLEGE **7895**
SCIENCE, ENGINEERING, MATHEMATICS AND AEROSPACE ACADEMY REPLICATION
 04/21/1997 – 09/30/1998 FY98: \$0 Total: \$225,000
Prin. Invest.: T MCMANAMON
Tech. Officer: LERC/R L BONDURANT
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 3 2195 CUYAHOGA COMMUNITY COLLEGE **7896**
FIRST GENERATION TECH PREP STUDENT SCHOLARSHIPS IN ADVANCED SCIENCE & TECHNOLOGY
 09/03/1998 – 08/25/1999 FY98: \$25,000 Total: \$25,000
Prin. Invest.: S CHAND
Tech. Officer: LERC/R F LAWRENCE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAS 3 97169 CUYAHOGA COMMUNITY COLLEGE **7897**
CLASSROOM REPLICATION OF MAEL AWARDED THROUGH HQ FY97 PARTNERSHIP AWARDS PRGM FOR MINORITY INST W/HBCU
 08/07/1997 – 08/07/1998 FY98: \$0 Total: \$400,000
Prin. Invest.: T MCMANAMON
Tech. Officer: LARC/R L BONDURANT, LARC/R F LAWRENCE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAS 3 98099 CUYAHOGA COMMUNITY COLLEGE **7898**
REPLICA OF SCIENCE ENGRG MATH. & AEROSPACE ACADEMY (SEMAA) IN CONNECTION W/NAS3-97168 (MAEL)
 06/30/1998 – 10/31/1999 FY98: \$388,251 Total: \$388,251
Prin. Invest.: L L HARLING
Tech. Officer: LERC/R L BONDURANT
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 4341 DENISON UNIVERSITY **7899**
LAB SPECTROSCOPY CH4 AND H2
 04/23/1997 – 05/31/1999 FY98: \$15,250 Total: \$53,350
Prin. Invest.: D E MICKELSON
Tech. Officer: GSI C/DBOGAN
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 3 1693 KENT STATE UNIVERSITY **7900**
SELECTIVE EMITTERS FOR THERMOPHOTOVOLTAIC (TPV) ENERGY CONVERSION APPLICATION
 01/09/1995 – 01/03/1998 FY98: -\$26 Total: \$33,774
Prin. Invest.: C VARGAS-ABURTO
Tech. Officer: LERC/D L CHUBB, LERC/D J FLOOD
CASE Category: 13 – PHYSICS

NAG 3 1726 KENT STATE UNIVERSITY **7901**
RADIATION EFFECTS ON PHOTOVOLTAIC MATERIALS
 04/01/1995 – 03/31/1999 FY98: \$0 Total: \$11,800
Prin. Invest.: C VARGAS-ABURTO
Tech. Officer: LERC/G RYBICKI
CASE Category: 13 – PHYSICS

NAG 3 1751 KENT STATE UNIVERSITY **7902**
KSU/NASA SUMMER INSTITUTE IN SPACE SCIENCE FOR MIDDLE GRADE TEACHERS
 06/01/1995 – 08/31/1998 FY98: \$114,261 Total: \$265,967
Prin. Invest.: J D KELLER, T KOONTZ, T KING
Tech. Officer: LERC/J STORTO
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 3 1810 KENT STATE UNIVERSITY **7903**
PERFORMANCE EVALUATION AND ANALYSIS OF MULTIPLE ACCESS CONTROL PROTOCOLS FOR THE MAARS REGIONAL NET
 03/06/1996 – 05/31/1997 FY98: -\$2,183 Total: \$72,817
Prin. Invest.: H PE'RAVI
Tech. Officer: LERC/B V NGUYEN
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 3638 KENT STATE UNIVERSITY **7904**
LIQUID CRYSTAL FOCAL-PLANE SHUTTERS
 03/07/1997 – 02/28/2000 FY98: \$24,400 Total: \$99,100
Prin. Invest.: D K YANG
Tech. Officer: GSF/H HASAN
CASE Category: 11 – ASTRONOMY

NCC 2 988 KENT STATE UNIVERSITY **7905**
STUDIES ON THE DYNAMICS & OPTICS OF Q-260 TWIST LIQUID CRYSTAL DISPLAY
 04/10/1997 – 12/31/1997 FY98: \$0 Total: \$1,500
Prin. Invest.: P J BOS
Tech. Officer: ARC/J LARIMER
CASE Category: 13 – PHYSICS

NCC 3 394 KENT STATE UNIVERSITY **7906**
INSTRUMENTATION FOR THE MEASUREMENT OF MARS MATERIALS PROPERTIES
 02/06/1995 – 07/15/1999 FY98: \$0 Total: \$103,438
Prin. Invest.: C VORGAS-ABURTO
Tech. Officer: LERC/A F HEPP
CASE Category: 45 – ELECTRICAL ENGR

NCC 3 457 KENT STATE UNIVERSITY **7907**
MATERIALS PRECURSOR DEVELOPMENT AND CHARACTERIZATION
 03/15/1996 – 02/28/1999 FY98: \$45,000 Total: \$160,825
Prin. Invest.: C VARUS-ABURTO, R M URIBE
Tech. Officer: LERC/A F HEPP, LERC/S G BAILEY
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 3 563 KENT STATE UNIVERSITY **7908**
THIN FILM BATTERIES
 06/17/1997 – 02/28/1999 FY98: \$29,000 Total: \$77,000
Prin. Invest.: C VARGAS ABURTO, R URIBE
Tech. Officer: LERC/A F HEPP
CASE Category: 12 – CHEMISTRY

NGT 51161 KENT STATE UNIVERSITY **7909**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/22/1993 – 09/30/1997 FY98: -\$649 Total: \$65,351
Prin. Invest.: J POTTER
Tech. Officer: HQ/P HUNTER
CASE Category: 22 – COMPUTER SCIENCE

NGT 3 52309 KENT STATE UNIVERSITY **7910**
GRADUATE STUDENT RESEARCHERS PROGRAM – HIGH PERFORMANCE COMPUTING AND COMMUNICATION (HPPC)
 07/25/1995 – 01/21/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: S RYAN
Tech. Officer: LERC/L SHAW
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAG 3 1780 LORAIN COUNTY COMMUNITY COLLEGE **7911**
LORAIN COMMUNITY COLLEGE/NASA LEWIS MENTOR INTERNSHIP PROGRAM
 08/17/1995 – 09/14/1998 FY98: \$0 Total: \$56,784
Prin. Invest.: G PILLAINAYAGAM, NONE
Tech. Officer: LERC/F H YARRIS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1017 MIAMI UNIVERSITY **7912**
GRAVIPERCEPTION IN STARCH-DEFICIENT PLANTS IN BIORACK
 10/31/1995 – 02/28/1999 FY98: \$89,065 Total: \$266,664
Prin. Invest.: J Z KISS
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NGT 51685 MIAMI UNIVERSITY **7913**
GRAD STUD RES PROG
 08/08/1996 – 08/31/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: J KISS
Tech. Officer: HQ/G LE SANE
CASE Category: 55 – AGRICULTURE

NGT 5 50041 MIAMI UNIVERSITY **7914**
THE ROLE OF INTEGRINS IN THE TRANSDUCTION OF GRAVITY
 08/15/1997 – 08/31/1999 FY98: \$22,000 Total: \$43,965
Prin. Invest.: J Z KISS/SWATZELL
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 3 2047 MOUNT VERNON NAZARENE COLLEGE **7915**
DEVELOPING AN INTEGRATED THIN FILM FLUORESCENCE NOX SENSOR
 05/06/1997 – 09/30/1997 FY98: -\$814 Total: \$19,186
Prin. Invest.: R W GRUNLKE
Tech. Officer: LERC/M L TUMA
CASE Category: 49 – ENGINEERING, OTHER

NAG 3 2156 MOUNT VERNON NAZARENE COLLEGE **7916**
DEVELOPING AN INTEGRATED THIN FILM FLUORESCENCE NOX SENSOR
 04/17/1998 – 07/31/1998 FY98: \$26,000 Total: \$26,000
Prin. Invest.: R W GRUNLKE
Tech. Officer: LERC/M L TUMA
CASE Category: 13 – PHYSICS

NAG 1 2084 OHIO NORTHERN UNIVERSITY **7917**
DETERMINATION OF SPECTRAL LINE PARAMETERS IN SELECTED PORTIONS OF THE INFRARED SPECTRUM OF WATER
 07/09/1998 – 08/31/1998 FY98: \$7,359 Total: \$7,359
Prin. Invest.: K K ALBERT
Tech. Officer: LARC/J G WELLS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 2 995 OHIO STATE UNIVERSITY **7918**
HUMAN CENTERED TECHNOLOGIES & PROCEDURES FOR FUTURE AIR TRAFFIC MANAGEMENT
 08/21/1995 – 07/31/1998 FY98: \$100,000 Total: \$570,848
Prin. Invest.: P J SMITH, D D WOODS
Tech. Officer: ARC/J M ORASANU, ARC/J D FOSTER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1023 OHIO STATE UNIVERSITY **7919**
GRAVITROPISM & AUTOTROPISM IN CRESS ROOTS
 01/29/1996 – 01/31/1998 FY98: \$0 Total: \$154,976
Prin. Invest.: F D SACK
Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 2 1156 OHIO STATE UNIVERSITY **7920**
HUMAN FACTORS ANALYSIS OF ISSUES IN THE MANAGEMENT & SUPPORT OF AIRPORT SURFACE MOVEMENT
 08/27/1997 – 05/31/1998 FY98: \$35,000 Total: \$65,000
Prin. Invest.: P J SMITH, R DENNING, D WOODS
Tech. Officer: ARC/L SPIRKOVSKA, ARC/B J GLASS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 2 1190 OHIO STATE UNIVERSITY **7921**
THE REGULATION OF GROWTH IN THE DISTAL ELONGATION ZONE OF MAIZE ROOTS
 03/20/1998 – 09/30/1998 FY98: \$37,981 Total: \$37,981
Prin. Invest.: M L EVANS, H ISHIKAWA
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NAG 2 1217 OHIO STATE UNIVERSITY **7922**
DEVELOPMENT OF GRAVITY SENSITIVE PLANT CELLS (CERA TODON) IN MIRCORGRAVITY
 05/06/1998 - 09/30/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: F D SACK, NONE
Tech. Officer: ARC/C M WINGET, LERC/P D SAVAGE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1437 OHIO STATE UNIVERSITY **7923**
MODELING OF DIFFUSION IN LIQUID GE & ITS ALLOYS
 01/19/1993 - 07/10/1997 FY98: -\$39 Total: \$154,694
Prin. Invest.: D G STROUD
Tech. Officer: LERC/T K GLASGOW, LERC/C R KROLIKOWSKI
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1461 OHIO STATE UNIVERSITY **7924**
HYDROGEN PASSIVATION & CHARACTERIZATION OF MISMATCH-INDUCED DEFECTS OF HETEROEPIITAXIAL INP SOLAR CE
 02/26/1993 - 10/31/1998 FY98: \$0 Total: \$151,962
Prin. Invest.: S A RINGEL
Tech. Officer: LERC/H WEINBERG
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1465 OHIO STATE UNIVERSITY **7925**
EXPERIMENTAL STUDIES OF HIGH POWER, HIGH PRESSURE PLASMA SOURCES
 03/17/1993 - 06/30/1997 FY98: -\$122 Total: \$388,351
Prin. Invest.: P J TURCHI
Tech. Officer: LERC/F M CURRAN, LERC/J M SANKOVIC
CASE Category: 42 - AERONAUTICAL ENGR

NAG 3 1724 OHIO STATE UNIVERSITY **7926**
MIXING ENHANCEMENT IN HIGH REYNOLDS NUMBER SPEED FREE SHEAR LAYERS
 04/01/1995 - 05/02/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: M SAMIMY
Tech. Officer: LERC/K O ZAMAN
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1764 OHIO STATE UNIVERSITY **7927**
THE EFFECTS OF MAGNETIC NOZZLE CONFIGURATIONS OF PLASMA THRUSTERS
 07/07/1995 - 11/30/1998 FY98: \$115,000 Total: \$303,572
Prin. Invest.: P J TURCHI
Tech. Officer: LERC/M MANTENIEKS
CASE Category: 13 - PHYSICS

NAG 3 1809 OHIO STATE UNIVERSITY **7928**
MODELING, VALIDATION AND IDENTIFICATION OF GENERAL AVIATION AIRCRAFT ENGINES
 03/01/1996 - 02/28/1997 FY98: -\$832 Total: \$49,169
Prin. Invest.: G RIFFON, S YURKOVICH
Tech. Officer: LERC/J L MUSGRAVE
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1826 OHIO STATE UNIVERSITY **7929**
COMPUTATIONAL METHODS FOR STRONGLY STABILIZING H C CONTROL-LER
 04/11/1996 - 10/31/1997 FY98: -\$13 Total: \$49,986
Prin. Invest.: H OZBAY
Tech. Officer: LERC/S GARY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1945 OHIO STATE UNIVERSITY **7930**
ELECTROMAGNETIC COMPUTATIONS FOR 3D MATERIAL STRUCTURES
 08/09/1996 - 06/30/1997 FY98: -\$31,763 Total: \$198,279
Prin. Invest.: A DUMINEK
Tech. Officer: LERC/C R HANN
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1947 OHIO STATE UNIVERSITY **7931**
CRYSTAL GROWTH & FLUID MECHANICS PROBLEMS IN DIRECTIONAL SOLIDIFICATION
 08/09/1996 - 06/30/2000 FY98: \$102,000 Total: \$264,000
Prin. Invest.: S TANVEER, NONE
Tech. Officer: LERC/C A CHAIT
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1979 OHIO STATE UNIVERSITY **7932**
PLANETARY GEAR DYNAMICS & VIBRATION ISOLATION IN ROTORCRAFT TRANSMISSIONS
 10/24/1996 - 10/31/1999 FY98: \$47,001 Total: \$100,727
Prin. Invest.: R G PARKER
Tech. Officer: LERC/T L KANTZ
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1986 OHIO STATE UNIVERSITY **7933**
MIXING ENHANCEMENT & NOISE REDUCTION IN HIGH REYNOLDS NUMBER SUPERSONIC JETS
 11/06/1996 - 10/31/1999 FY98: \$89,681 Total: \$179,581
Prin. Invest.: D M SAMIMY, NONE
Tech. Officer: LERC/K Q ZAMAN
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2007 OHIO STATE UNIVERSITY **7934**
A STUDY OF TAIL PLANE ICING
 01/27/1997 - 01/31/1999 FY98: \$0 Total: \$70,030
Prin. Invest.: G N GREYOREK
Tech. Officer: LERC/T P RATUVASKY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2017 OHIO STATE UNIVERSITY **7935**
NUMERICAL ANALYSIS OF UNSTEADY FLOW IN CONVERGING-DIVERGING NOZZLE
 03/07/1997 - 04/30/1998 FY98: \$0 Total: \$72,963
Prin. Invest.: J N SCOTT
Tech. Officer: LERC/E A KREJSA, LERC/J F GROENEWEG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2084 OHIO STATE UNIVERSITY **7936**
INTELLIGENT FAULT TOLERANT ENGINE CONTROL INTELLIGENT FAULT TOLERANT ENGINE CONTROL
 10/30/1997 - 10/31/2000 FY98: \$68,804 Total: \$68,804
Prin. Invest.: K N PASSINO
Tech. Officer: LERC/T H GUO, LERC/J LITT
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2090 OHIO STATE UNIVERSITY **7937**
RESEARCH ON HIGH TEMPERATURE INSULATION FOR ELECTRICAL CONDUCTORS
 02/27/1998 - 02/11/1999 FY98: \$40,153 Total: \$40,153
Prin. Invest.: E K YEIDLER
Tech. Officer: LERC/J LEL, LERC/G C FRALIKE
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2138 OHIO STATE UNIVERSITY **7938**
ULTRASOUND THERMAL FIELD IMAGING OF OPAQUE FLUIDS
 SOUND THERMAL FIELD IMAGING OF OPAQUE FLUIDS
 03/06/1998 – 12/31/2002 FY98: \$72,000 Total: \$72,000
Prin. Invest.: C D ANDERHECK *Prin. Invest.:* NONE
Tech. Officer: LERC/D W GRIFFIN
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 3 2157 OHIO STATE UNIVERSITY **7939**
UNSTEADY EFFECTS (INCLUDING FILM COOLING) ON HIGH PRESSURE
TUBINESS: AN ANALYTICAL AND EXPERIMENTAL
 04/22/1998 – 02/23/1999 FY98: \$80,000 Total: \$80,000
Prin. Invest.: M G DUNN, R S ABHARI
Tech. Officer: LERC/K C CIVISKAS
CASE Category: 46 – MECHANICAL ENGR

NAG 3 2202 OHIO STATE UNIVERSITY **7940**
MAGNETIC NOZZLE STUDIES FOR ADVANCED ROCKET PROPULSION
 09/25/1998 – 09/30/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: P J TURCHI
Tech. Officer: LERC/C H WILLIAMS
CASE Category: 42 – AERONAUTICAL ENGR

NAG 5 2355 OHIO STATE UNIVERSITY **7941**
MULTIWAVELENGTH STUDY OF X-RAY NOVAE
 08/25/1993 – 01/14/1998 FY98: \$0 Total: \$59,098
Prin. Invest.: R M WAGNER, C R SHRADER
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2996 OHIO STATE UNIVERSITY **7942**
EXTRACTION AND INTERPRETATION OF POLAR LITHOSPHERIC ANOMALIES
FROM COMBINED OERSTED AND MAGSAT DATA
 07/10/1995 – 07/14/1997 FY98: \$0 Total: \$174,976
Prin. Invest.: R VON FRESE
Tech. Officer: GSFC/P TAYLOR
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3111 OHIO STATE UNIVERSITY **7943**
DARK MATTER AND COSMIC STRUCTURE FORMATION
 10/24/1995 – 10/31/1999 FY98: \$0 Total: \$207,000
Prin. Invest.: D H WEINBERG
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3233 OHIO STATE UNIVERSITY **7944**
PROBING THE CENTRAL REGIONS OF ACTIVE NUCLEI
 05/15/1996 – 05/14/1998 FY98: \$0 Total: \$124,220
Prin. Invest.: A K PRADHAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3366 OHIO STATE UNIVERSITY **7945**
IMAGING ON INFRARED EMISSION FEATURES IN REFLECTIVE NEBULAR
 08/15/1996 – 08/14/1998 FY98: \$0 Total: \$93,700
Prin. Invest.: K SELLGREN
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3477 OHIO STATE UNIVERSITY **7946**
"REMOTE SENSING STUDIES OF GLACIER FACIES ON THE G
 10/30/1996 – 06/30/1998 FY98: \$0 Total: \$102,680
Prin. Invest.: K JEZEK
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3497 OHIO STATE UNIVERSITY **7947**
REVERBERATION MAPPING OF MARKARIAN 335
 11/27/1996 – 11/30/1998 FY98: \$0 Total: \$42,000
Prin. Invest.: B M PETERSON
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3525 OHIO STATE UNIVERSITY **7948**
QUASAR ABSORPTION IN THE UV: PROBING THE INTERGALA
 11/13/1996 – 09/14/1998 FY98: \$103,300 Total: \$217,400
Prin. Invest.: D H WEINBERG
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3774 OHIO STATE UNIVERSITY **7949**
RE-EVALUATION OF THE ROLE OF STARCH IN GRAVITROPIC
 03/06/1997 – 02/14/1998 FY98: \$0 Total: \$90,301
Prin. Invest.: F SACK
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 3817 OHIO STATE UNIVERSITY **7950**
MULTIWAVELENGTH STUDIES OF X-RAY NOVAE
 01/14/1997 – 01/14/1998 FY98: \$0 Total: \$10,000
Prin. Invest.: R WAGNER
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 3969 OHIO STATE UNIVERSITY **7951**
INTERNATIONAL CONFERENCE ON GEOSCIENCE EDUCATION
 03/11/1997 – 08/31/1998 FY98: \$0 Total: \$15,000
Prin. Invest.: V J MAYER
Tech. Officer: GSFC/N NORMANDY
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3983 OHIO STATE UNIVERSITY **7952**
MILLIMETER AND SUBMILLIMETER SPECTROSCOPY OF MOLECULAR IMPOR-
TANCE
 03/03/1997 – 02/28/1999 FY98: \$101,303 Total: \$204,625
Prin. Invest.: F C DEELUCIA
Tech. Officer: GSFC/M J KURYLO
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4075 OHIO STATE UNIVERSITY **7953**
A COOPERATIVE PALEOCLIMATE STUDY OF GRAHAM BELL IC LAND, RUS-
SIA
 05/06/1997 – 06/30/1999 FY98: \$0 Total: \$266,425
Prin. Invest.: D L THOMPSON
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4239 OHIO STATE UNIVERSITY **7954**
BLACK HOLE X-RAY NOVA OUTBURST WITH XTE AND HST
 04/18/1997 - 03/31/1998 FY98: \$0 Total: \$2,945
Prin. Invest.: M WAGNER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4250 OHIO STATE UNIVERSITY **7955**
SAR-BASED STRUCTURAL MAPPING OF THE TRANSANTARCTIC
 03/24/1997 - 03/31/1999 FY98: \$56,819 Total: \$95,870
Prin. Invest.: T J WILSON
Tech. Officer: GSFC/S H GOGINENI
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4405 OHIO STATE UNIVERSITY **7956**
X-RAY OBSERVATIONS OF THE HIGHEST FIELD AM HE SYST
 05/06/1997 - 05/14/1998 FY98: \$0 Total: \$9,395
Prin. Invest.: M WAGNER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4849 OHIO STATE UNIVERSITY **7957**
RADARSAT: THE ANTARCTIC MAPPING PROJECT
 07/23/1997 - 06/30/1999 FY98: \$722,265 Total: \$1,142,022
Prin. Invest.: D JEZEK
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5032 OHIO STATE UNIVERSITY **7958**
NET ANNUAL ACCUMULATION IN WESTERN GREENLAND FOR THE LAST 200 YEARS
 03/28/1995 - 09/30/1998 FY98: \$0 Total: \$201,777
Prin. Invest.: E MOSLEY-THOMPSON
Tech. Officer: WFF/W B KRABILL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 5037 OHIO STATE UNIVERSITY **7959**
MASS BALANCE OF THE GREENLAND ICE SHEET USING GPS MEASUREMENTS
 04/27/1995 - 03/31/1998 FY98: \$15,031 Total: \$167,305
Prin. Invest.: G HAMILTON
Tech. Officer: WFF/W B KRABILL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6001 OHIO STATE UNIVERSITY **7960**
SATELITE AND MODEL ANALYSIS OF THE ATMOSPHERIC MOI LATITUDES
 09/10/1997 - 07/31/1999 FY98: \$140,000 Total: \$289,903
Prin. Invest.: D BROMWICH
Tech. Officer: HQ/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6344 OHIO STATE UNIVERSITY **7961**
HUMAN INTERACTION DESIGN FOR ANOMALY RESPONSE
 09/11/1997 - 05/31/1999 FY98: \$0 Total: \$66,000
Prin. Invest.: D WOODS
Tech. Officer: GSFC/G FOGLEMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6527 OHIO STATE UNIVERSITY **7962**
THE SPATIAL AND TEMPORAL CHARACTERISTICS OF HIGH L ALTITUDE SEASONAL SNCW MELT AS DETECTED BYPASSIVE
 12/06/1997 - 10/1/1999 FY98: \$133,902 Total: \$133,902
Prin. Invest.: K JEZEK
Tech. Officer: GS/C/J DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6618 OHIO STATE UNIVERSITY **7963**
APPLICATIONS OF HISTORICAL SATELLITE DATA SETS FOR GLOBAL ENVIRONMENTAL ASSESSMENTS
 11/18/1997 - 11/14/1998 FY98: \$135,000 Total: \$135,000
Prin. Invest.: D C JEZEK
Tech. Officer: GS/C/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6697 OHIO STATE UNIVERSITY **7964**
THE STUDY OF EFFECTS OF TIME VARIATIONS IN THE EARTH'S GRAVITY FIELD ON GEODETIC SATELLITES
 11/01/1997 - 10/1/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: C K SHUM
Tech. Officer: GS/C/P T TAYLOR
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6817 OHIO STATE UNIVERSITY **7965**
SPATIAL AND TEMPORAL VARIABILITY OF NET ANNUAL ACCUMULATION AND CLIMATE IN GREENLAND
 01/07/1998 - 12/1/1998 FY98: \$61,501 Total: \$61,501
Prin. Invest.: E S MOSLEY-THOMPSON
Tech. Officer: GS/C/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6818 OHIO STATE UNIVERSITY **7966**
DETERMINING GREENLAND ICESHEET ACCUMULATION RATES FROM RADAR REMOTE SENSING
 01/07/1998 - 12/1/1999 FY98: \$80,722 Total: \$80,722
Prin. Invest.: K C JEZEK
Tech. Officer: GS/C/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6908 OHIO STATE UNIVERSITY **7967**
ATOMIC DATABASE FOR ASTROPHYSICS FROM THE IRON PROJECT
 01/23/1998 - 01/1/1999 FY98: \$45,000 Total: \$45,000
Prin. Invest.: A PIADHAN
Tech. Officer: GS/C/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6910 OHIO STATE UNIVERSITY **7968**
IMPROVEMENT OF TOPEX/POSEIDON ALTIMETER DATA FOR GLOBAL CHANGE STUDIES AND COASTAL APPLICATIONS(NR)
 02/19/1998 - 05/1/1998 FY98: \$83,669 Total: \$83,669
Prin. Invest.: C K SHUM
Tech. Officer: GS/C/C KOBLINSKY
CASE Category: 33 - OCEANOGRAPHY

NAG 5 7029 OHIO STATE UNIVERSITY **7969**
OPTICAL IDENTIFICATION OF GAMMA-RAY BURSTS WITH THE LONEOS TELESCOPE
 02/12/1998 - 01/4/1999 FY98: \$25,000 Total: \$25,000
Prin. Invest.: R WAGNER
Tech. Officer: GS/C/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7116 OHIO STATE UNIVERSITY **7970**
STAR FORMATION AND THE INTERSTELLAR MEDIUM IN SO GALAXIES
USING ROSAT POINTED OB
 04/15/1998 – 07/14/1998 FY98: \$8,563 Total: \$8,563
Prin. Invest.: P ESKRIDGE
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7150 OHIO STATE UNIVERSITY **7971**
STANDARD & NONSTANDARD STELLAR MODELS: IMPLICATIONS FOR
CLUSTER AGES AND LATE EVOLUTIONARY STAGES
 04/02/1998 – 03/14/1999 FY98: \$104,000 Total: \$104,000
Prin. Invest.: M H PINSONNEAULT
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 7284 OHIO STATE UNIVERSITY **7972**
VERIFICATION AND IMPROVEMENT OF ERS-1/2 ALTIMETER GEOPHYSICAL
DATA RECORDERS FOR GLOBAL CHANGES
 04/22/1998 – 06/30/2001 FY98: \$65,008 Total: \$65,008
Prin. Invest.: C K SHUM
Tech. Officer: GSFC/E J LINDSTROM
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7574 OHIO STATE UNIVERSITY **7973**
FUNDING FOR GRAVITY & TIME VARYING GRAVITY FIELD RECOVERY
(SENH98-0144)
 08/04/1998 – 01/31/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: C K SHUM
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 7589 OHIO STATE UNIVERSITY **7974**
SEARCHING FOR EXTRA-SOLAR SYSTEM PLANETS USING MULTICOLOR
MICROLENSING OBSERVATIONS
 06/30/1998 – 05/31/2001 FY98: \$52,000 Total: \$52,000
Prin. Invest.: D L DEPOY
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 8 1267 OHIO STATE UNIVERSITY **7975**
REVERSE MICELLE BASED SYNTHESIS OF MICROPOROUS MATERIALS IN
MICROGRAVITY
 05/23/1996 – 05/31/2000 FY98: \$89,640 Total: \$207,500
Prin. Invest.: P K DUTTA, R ANSARI, C T KRESGE
Tech. Officer: MSFC/D R WOODARD, MSFC/R W ALLEN
CASE Category: 13 – PHYSICS

NAG 8 1441 OHIO STATE UNIVERSITY **7976**
GRAVITATIONAL EFFECTS IN BOSE-EINSTEIN CONDENSATE OF ATOMIC
GASES
 03/06/1998 – 01/31/2003 FY98: \$39,000 Total: \$39,000
Prin. Invest.: T HO
Tech. Officer: MSFC/J W POE
CASE Category: 13 – PHYSICS

NAG 8 1470 OHIO STATE UNIVERSITY **7977**
R/S INTERDIFFUSION IN THE PRESENCE OF FREE CONVECTION
 03/26/1998 – 01/30/2002 FY98: \$46,667 Total: \$46,667
Prin. Invest.: P K GUPTA
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 9 786 OHIO STATE UNIVERSITY **7978**
HUMAN INTERACTION DESIGN FOR COOPERATING AUTOMATION
 05/31/1995 – 07/31/1998 FY98: \$0 Total: \$63,000
Prin. Invest.: D WOODS
Tech. Officer: JSC/J MALIN
CASE Category: 46 – MECHANICAL ENGR

NAG 9 1005 OHIO STATE UNIVERSITY **7979**
ORIENTATION FOR INTERVENTION: SUPPORTING MISSION AWARENESS IN
SPACE OPERATIONS
 05/06/1998 – 05/05/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: D D WOODS
Tech. Officer: JSC/J DETROVE
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 2639 OHIO STATE UNIVERSITY **7980**
MILLIMETER AND SUBMILLIMETER SPECTROSCOPY
 08/20/1991 – 09/30/1997 FY98: \$0 Total: \$630,847
Prin. Invest.: F C DE LUCIA
Tech. Officer: HQ/M J KURYLO, HQ/R F HAMPSON
CASE Category: 13 – PHYSICS

NAGW 2718 OHIO STATE UNIVERSITY **7981**
GENERAL CIRCULATION MODEL SIMULATIONS FOR ANTARCTICA
 08/30/1991 – 09/30/1997 FY98: \$0 Total: \$420,776
Prin. Invest.: D H BROMWICH
Tech. Officer: HQ/R H THOMAS, HQ/R A SCHIFFER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 2906 OHIO STATE UNIVERSITY **7982**
SUBMILLIMETER LABORATORY INVESTIGATIONS: SPECTROSCOPY AND
COLLISIONS
 02/20/1992 – 01/13/1998 FY98: \$0 Total: \$324,778
Prin. Invest.: E HERBST, F C DE LUCIA
Tech. Officer: HQ/L J CAROFF
CASE Category: 11 – ASTRONOMY

NAGW 3668 OHIO STATE UNIVERSITY **7983**
DETECTION OF EXTRATERRESTRIAL SIGNALS AT OHIO STATE UNIVERSITY
 06/23/1993 – 05/31/1997 FY98: \$0 Total: \$130,600
Prin. Invest.: C A KLEIN
Tech. Officer: HQ/J D RUMMEL
CASE Category: 11 – ASTRONOMY

NAGW 3677 OHIO STATE UNIVERSITY **7984**
SATELLITE AND MODEL ANALYSIS OF THE ATMOSPHERIC MOISTURE
BUDGET
 06/30/1993 – 09/30/1998 FY98: \$0 Total: \$496,801
Prin. Invest.: D H BROMWICH
Tech. Officer: HQ/R H THOMAS, HQ/R A SCHIFFER
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4215 OHIO STATE UNIVERSITY **7985**
SAR OBSERVATIONS OF THE POLAR ICE SHEETS
 12/07/1994 – 08/31/1997 FY98: \$0 Total: \$553,252
Prin. Invest.: K JEZEK
Tech. Officer: HQ/R H THOMAS, HQ/J S THEON
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

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| NAGW 4522 | OHIO STATE UNIVERSITY | 7986 |
| CELLULAR SPECIFICITY IN ARABIDOPSIS ROOT GRAVITROPISM | | |
| 05/30/1995 - 10/31/1997 | FY98: -\$1,954 | Total: \$185,759 |
| Prin. Invest.: M L EVANS | | |
| Tech. Officer: HQ/T K SCOTT | | |
| CASE Category: 59 - LIFE SCIENCE, OTHER | | |
| NAGW 4560 | OHIO STATE UNIVERSITY | 7987 |
| HUMAN INTERACTION DESIGN FOR ANOMALY | | |
| 06/02/1995 - 09/30/1997 | FY98: -\$468 | Total: \$122,532 |
| Prin. Invest.: D D WOODS | | |
| Tech. Officer: HQ/G FOGLEMAN | | |
| CASE Category: 99 - MULTI INTERDISCIPL, OTHER | | |
| NAGW 4744 | OHIO STATE UNIVERSITY | 7988 |
| RADARSAT: THE ANTARCTIC MAPPING PROJECT | | |
| 09/25/1995 - 09/30/1998 | FY98: \$0 | Total: \$2,289,393 |
| Prin. Invest.: K C JEZEK | | |
| Tech. Officer: HQ/M E MAIDEN | | |
| CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | | |
| NAGW 4903 | OHIO STATE UNIVERSITY | 7989 |
| A COOPERATIVE ICE CORE PALEOCLIMATE STUDY OF WINDY DOME ICE CAP ON GRAHAM BELL ISLAND IN FRANZ JOSE | | |
| 01/26/1996 - 09/30/1997 | FY98: -\$2,086 | Total: \$325,310 |
| Prin. Invest.: L THOMPSON | | |
| Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS | | |
| CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | | |
| NAGW 4951 | OHIO STATE UNIVERSITY | 7990 |
| GROUND-BASED AND SMALL PAYLOADS RESEARCH IN SPACE LIFE SCIENCES | | |
| 07/16/1996 - 06/30/1997 | FY98: -\$407 | Total: \$72,782 |
| Prin. Invest.: M D PORTER, PH.D. | | |
| Tech. Officer: HQ/G FOGLEMAN | | |
| CASE Category: 59 - LIFE SCIENCE, OTHER | | |
| NAGW 4985 | OHIO STATE UNIVERSITY | 7991 |
| SAR BASED STRUCTURAL MAPPING | | |
| 03/05/1996 - 09/30/1997 | FY98: \$0 | Total: \$62,483 |
| Prin. Invest.: T J WILSON | | |
| Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS | | |
| CASE Category: 32 - GEOLOGICAL SCIENCE | | |
| NAG10 179 | OHIO STATE UNIVERSITY | 7992 |
| DIFFERENTIATION IN SPACE GROWN MOSS | | |
| 12/07/1995 - 12/14/1998 | FY98: \$102,545 | Total: \$286,393 |
| Prin. Invest.: F SACK | | |
| Tech. Officer: KSC/W KNOLL | | |
| CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) | | |
| NAG13 42 | OHIO STATE UNIVERSITY | 7993 |
| A CENTER FOR THE COMMERCIAL DEVELOPMENT OF SPACE: REAL-TIME AIRBORNE/SATELLITE MAPPING | | |
| 01/10/1997 - 02/08/1999 | FY98: \$1,670,758 | Total: \$2,470,758 |
| Prin. Invest.: J D BOSSLER | | |
| Tech. Officer: SSC/H CARR | | |
| CASE Category: 32 - GEOLOGICAL SCIENCE | | |
| NAS 1 96009 | OHIO STATE UNIVERSITY | 7994 |
| REDESIGN AND MODIFICATION OF THE GIGAHERTZ TRANSVERSE ELECTROMAGNETIC TEST CHAMBER(GTEM) | | |
| 08/23/1996 - 15/22/1998 | FY98: \$0 | Total: \$150,000 |
| Prin. Invest.: V D BURNSIDE, A K DOMINCK, N N WANG | | |
| Tech. Officer: LARC/T X NGUYEN, LARC/R A WILLIAMS | | |
| CASE Category: 45 - ELECTRICAL ENGR | | |
| NAS 1 98102 | OHIO STATE UNIVERSITY | 7995 |
| FINAL TESTING AND EVALUATION OF ATR LOW FREQUENCY COMPACT RANGE FACILITY | | |
| 04/07/1998 - 04/06/1999 | FY98: \$167,500 | Total: \$167,500 |
| Prin. Invest.: N D BURNSIDE | | |
| Tech. Officer: LARC/M GILREATH | | |
| CASE Category: 45 - ELECTRICAL ENGR | | |
| NAS 3 97030 | OHIO STATE UNIVERSITY | 7996 |
| NRA-ULTRASONIC CHARACTERIZATION OF FATIGUE MICRO DAMAGE | | |
| 11/08/1996 - 11/07/1998 | FY98: \$57,977 | Total: \$110,977 |
| Prin. Invest.: S ROKHLIN, G MAJOR, D WILLIARD | | |
| Tech. Officer: LERC/D J ROTH | | |
| CASE Category: 47 - METAL & MATERIALS ENGR | | |
| NAS 3 97198 | OHIO STATE UNIVERSITY | 7997 |
| DESIGN ISSUES IN TRAFFIC MGMT FOR THE ATM UBR+SER VICE FOR TCP OVER SATELLITE NETWORKS | | |
| 12/02/1997 - 11/01/1998 | FY98: \$159,629 | Total: \$159,629 |
| Prin. Invest.: A AIN | | |
| Tech. Officer: LERC/T C VONDEAK | | |
| CASE Category: 22 - COMPUTER SCIENCE | | |
| NAS 5 30846 | OHIO STATE UNIVERSITY | 7998 |
| GLRS TEAM MEMBER SUPPORT TO THE EARTH OBSERVING SYSTEM (EOS) PROGRAM | | |
| 12/18/1990 - 10/31/1998 | FY98: \$147,000 | Total: \$596,762 |
| Prin. Invest.: R H THOMAS | | |
| Tech. Officer: GFC/T W HAMILTON | | |
| CASE Category: 31 - ATMOSPHERIC SCIENCE | | |
| NCA 1 146 | OHIO STATE UNIVERSITY | 7999 |
| AGATE PROGRAM - GENERAL AVIATION | | |
| 07/11/1996 - 10/31/1997 | FY98: \$0 | Total: \$57,000 |
| Prin. Invest.: G C HUBB | | |
| Tech. Officer: LARC/B J HOLMES, LARC/M H DURHAM | | |
| CASE Category: 41 - AERONAUTICAL ENGR | | |
| NCA 3 122 | OHIO STATE UNIVERSITY | 8000 |
| 2.1.5.3 VALIDATE ENGINE MODULE USING TEST DATA | | |
| 03/04/1997 - 10/11/1998 | FY98: \$15,000 | Total: \$30,000 |
| Prin. Invest.: R F JORTNER | | |
| Tech. Officer: LERC/J L MUSGRAVE | | |
| CASE Category: 41 - AERONAUTICAL ENGR | | |
| NCC 2 592 | OHIO STATE UNIVERSITY | 8001 |
| COGNITIVE ENGINEERING IN AEROSPACE APPLICATIONS | | |
| 03/13/1989 - 05/31/1997 | FY98: -\$509 | Total: \$860,833 |
| Prin. Invest.: D D WOODS | | |
| Tech. Officer: ARC/K CORKER, ARC/B T SWEET | | |
| CASE Category: 41 - AERONAUTICAL ENGR | | |

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| <p>NCC 2 830 OHIO STATE UNIVERSITY 8002 DISTRIBUTED & COOPERATIVE PROBLEM-SOLVING IN THE NATIONAL AVIATION SYSTEM 10/19/1993 - 10/31/1998 FY98: \$70,000 Total: \$354,060 Prin. Invest.: P J SMITH Tech. Officer: ARC/J M ORASANU CASE Category: 59 - LIFE SCIENCE, OTHER</p> | <p>NGT 51281 OHIO STATE UNIVERSITY 8010 GRADUATE STUDENT RESEARCHERS PROGRAM 06/14/1994 - 09/30/1997 FY98: \$0 Total: \$66,000 Prin. Invest.: F SACK Tech. Officer: HQ/G LESANE CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p> |
| <p>NCC 2 5251 OHIO STATE UNIVERSITY 8003 MINATURIZATION METHODOLOGIES IN BIOMEDICAL AND CHEMICAL SENSOR APPLICATIONS AT NASA 01/28/1998 - 09/30/1998 FY98: \$40,000 Total: \$40,000 Prin. Invest.: M MADOU Tech. Officer: ARC/J W HINES, ARC/M G SKIDMORE CASE Category: 47 - METAL & MATERIALS ENGR</p> | <p>NGT 5 30012 OHIO STATE UNIVERSITY 8011 AN ICE CORE PALEOCLIMATE STUDY OF WINDY DOME, FRANKLIN DEVELOPMENT OF A SEA ICE PROXY FROM SATELLITE AND 10/14/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000 Prin. Invest.: L G THOMPSON Tech. Officer: GSFC/G ASRAR CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p> |
| <p>NCC 3 434 OHIO STATE UNIVERSITY 8004 DEVELOPMENT OF LOW REYNOLDS NUMBER HEAT EXCHANGERS 09/25/1995 - 11/30/1998 FY98: \$313,696 Total: \$647,311 Prin. Invest.: R N CHRISTENSEN, Y GUEZENNEC Tech. Officer: LERC/T T MOCKLER, LERC/D BENTS CASE Category: 46 - MECHANICAL ENGR</p> | <p>NGT 5 30042 OHIO STATE UNIVERSITY 8012 BIOMASS BURNING IN TROPICAL RAIN FORESTS: AN ANALYSIS AND LAND USE PRACTICE TO ASSESS BURNING PATTERNS 10/17/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000 Prin. Invest.: E MOSLEY-THOMPSON Tech. Officer: GSFC/G ASRAR CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p> |
| <p>NCC 3 467 OHIO STATE UNIVERSITY 8005 A STUDY OF TAILPLANE ICING 04/11/1996 - 04/10/1998 FY98: -\$5 Total: \$119,600 Prin. Invest.: G M GREGOREK Tech. Officer: LERC/T PRATVASKY CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NGT 5 50015 OHIO STATE UNIVERSITY 8013 THE ROLE OF ELECTRICAL EVENTS IN CONTROLLING DIFFERENTIAL GRAVITROPISM IN THE DEZ 09/06/1997 - 08/30/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: M EVANS, NONE Tech. Officer: HQ/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p> |
| <p>NCC 3 492 OHIO STATE UNIVERSITY 8006 INVESTIGATION OF LOSSES & ACOUSTIC NOISE OF SWITCHED RELUCTANCE MACHINE 08/05/1996 - 06/30/1997 FY98: \$0 Total: \$24,500 Prin. Invest.: D XU Tech. Officer: LERC/D J CONNOLLY CASE Category: 46 - MECHANICAL ENGR</p> | <p>NSG 1613 OHIO STATE UNIVERSITY 8014 RADAR CROSS SECTION STUDIES 04/18/1979 - 06/30/1998 FY98: \$67,305 Total: \$9,178,999 Prin. Invest.: W D BURNSIDE, L PETERS, JR, A K DOMINEK Tech. Officer: LARC/M C GILREATH, LARC/W C SAWYER CASE Category: 45 - ELECTRICAL ENGR</p> |
| <p>NCC 3 555 OHIO STATE UNIVERSITY 8007 MODELING OF DIFFUSION IN LIQUID GE & ITS ALLOYS 05/06/1997 - 07/10/1998 FY98: \$0 Total: \$42,000 Prin. Invest.: STROUD Tech. Officer: LERC/T K GLASGOW CASE Category: 47 - METAL & MATERIALS ENGR</p> | <p>NAG 1 1423 OHIO UNIVERSITY 8015 GPS INTERFEROMETRY 04/06/1992 - 03/31/1998 FY98: \$0 Total: \$694,268 Prin. Invest.: F VAN GRAAS Tech. Officer: LARC/R M HUESCHEN CASE Category: 49 - ENGINEERING, OTHER</p> |
| <p>NGT 30236 OHIO STATE UNIVERSITY 8008 GLOBAL CHANGE FELLOWSHIP PROGRAM 10/10/1994 - 08/31/1997 FY98: \$0 Total: \$66,000 Prin. Invest.: E C DELUCIA Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR CASE Category: 31 - ATMOSPHERIC SCIENCE</p> | <p>NAG 1 2036 OHIO UNIVERSITY 8016 MODIFYING & TESTING ATC CONTROLLER INTERFACE (CI) FOR DATA LINK CLEARANCES 03/24/1998 - 02/28/1999 FY98: \$155,756 Total: \$155,756 Prin. Invest.: J RANKIN, P MATTSON Tech. Officer: LARC/S D YOUNG CASE Category: 45 - ELECTRICAL ENGR</p> |
| <p>NGT 51255 OHIO STATE UNIVERSITY 8009 GRADUATE STUDENT RESEARCHERS PROGRAM 06/14/1994 - 12/31/1997 FY98: -\$4 Total: \$65,996 Prin. Invest.: T E NYGREN Tech. Officer: LARC/L EVANS CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS</p> | <p>NAG 1 2099 OHIO UNIVERSITY 8017 HAPTICS-AUGMENTED NASA EDUCATION VIA THE INTERNET 08/10/1998 - 09/30/1999 FY98: \$2,000 Total: \$2,000 Prin. Invest.: R L WILLIAMS Tech. Officer: LARC/J M SEATON CASE Category: 22 - COMPUTER SCIENCE</p> |

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| NAG 5 3050 OHIO UNIVERSITY THE THREE DIMENSIONAL MASS DISTRIBUTIONS IN ELLIPTICAL GAL-AXIES 09/01/1995 - 12/14/1997 FY98: \$0 Prin. Invest.: T STATLER Tech. Officer: GSFC/D WEST CASE Category: 11 - ASTRONOMY | 8018 | NAG 3 1491 UNIVERSITY OF AKRON UTILIZATION OF THE FRACTIONAL CALCULUS IN CONTROL ENGINEERING 04/26/1993 - 04/30/1997 FY98: -\$95 Prin. Invest.: T T HARTLEY Tech. Officer: LERC/C F LORENZO CASE Category: 49 - ENGINEERING, OTHER | 8026 |
| NAG 5 3563 OHIO UNIVERSITY IR SPECTROSCOPY OF THE LOWEST LUMINOSITY SY 1 NUCL 01/29/1997 - 04/30/1999 FY98: \$0 Prin. Invest.: J C SHIELDS Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY | 8019 | NAG 3 1498 UNIVERSITY OF AKRON MODELING & STRUCTURE-PROPERTY RELATIONSHIPS OF POL YMIDE THERMOSETTING RESINS 05/26/1993 - 11 16/1996 FY98: -\$1,210 Prin. Invest.: F M KELLEY, V GALIATSATOS Tech. Officer: LERC/G D ROBERTS CASE Category: 47 - METAL & MATERIALS ENGR | 8027 |
| NAG 5 3690 OHIO UNIVERSITY MULTIWAVELENGTH STUDY OF HIGH REDSHIFT QUASARS 01/22/1997 - 01/31/1999 FY98: \$0 Prin. Invest.: J C SHIELDS Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY | 8020 | NAG 3 1747 UNIVERSITY OF AKRON DEVELOPMENTS IN COUPLED DEFORMATION-DAMAGE AND FRACTURE MODELING FOR LIFE PREDICTIONS OF STRUCTURES 05/19/1995 - 11/13/1998 FY98: \$154,047 Prin. Invest.: A F SALEEB Tech. Officer: LERC/S M ARNOLD CASE Category: 41 - AERONAUTICAL ENGR | 8028 |
| NCC 2 827 OHIO UNIVERSITY DISTRIBUTED & COOPERATIVE PROBLEM-SOLVING IN THE NATIONAL AVIATION SYSTEM 09/20/1993 - 05/31/1999 FY98: \$70,253 Prin. Invest.: C E MCCOY, P J SMITH Tech. Officer: ARC/J M ORASANU CASE Category: 59 - LIFE SCIENCE, OTHER | 8021 | NAG 3 1827 UNIVERSITY OF AKRON MIXED-MODE COMPLEX SHAPE CRACKS PROPAGATION IN ANISOTROPIC PLATES 04/11/1996 - 08/30/1997 FY98: -\$1,721 Prin. Invest.: J K BINIENDA Tech. Officer: LERC/S M ARNOLD CASE Category: 41 - AERONAUTICAL ENGR | 8029 |
| NCC 2 1030 OHIO UNIVERSITY WEATHER-RELATED PILOT DECISION-MAKING CONTEXT CATEGORIZATION 03/25/1998 - 12/31/1998 FY98: \$73,080 Prin. Invest.: C E MCCOY Tech. Officer: ARC/J M ORASANU CASE Category: 69 - PSYCHOLOGY, OTHER | 8022 | NAG 3 2069 UNIVERSITY OF AKRON FE/ANALYTICAL LIFE PREDICTION OF BRITTLE MATERIALS 08/19/1997 - 05/31/1998 FY98: \$0 Prin. Invest.: PADOVAN, W K BINIENDA Tech. Officer: LERC/G R HALFORD CASE Category: 49 - ENGINEERING, OTHER | 8030 |
| NCC 3 430 OHIO UNIVERSITY HIGH PERFORMANCE TCP/IP APPLICATIONS FOR USE OVER FAST SATELLITE COMMUNICATIONS CHANNELS 09/19/1995 - 09/30/1998 FY98: \$16,928 Prin. Invest.: H KRUSE Tech. Officer: LERC/R J SCHERTLER CASE Category: 49 - ENGINEERING, OTHER | 8023 | NAG 3 2079 UNIVERSITY OF AKRON SOLID-STATE NMR CHARACTERIZATION OF FEP/A1 FILMS FROM THE HUBBLE SPACE TELESCOPE 09/26/1997 - 11/16/1997 FY98: \$0 Prin. Invest.: M ESPE Tech. Officer: LERC/J A DEVER CASE Category: 12 - CHEMISTRY | 8031 |
| NAG 1 448 UNIVERSITY OF AKRON SYNTHESIS & CHARACTERIZATION OF THERMALLY-STABLE SOLVENT/IMPACT RESISTANT THERMOPLASTIC POLYIMIDES 02/13/1984 - 03/31/1998 FY98: \$25,000 Prin. Invest.: F W HARRIS Tech. Officer: LARC/P M HERGENROTHER, LARC/B J JENSEN CASE Category: 12 - CHEMISTRY | 8024 | NAG 3 2181 UNIVERSITY OF AKRON FAST POTENTIAL THEORETIC METHODS FOR FAR-FIELD SOUND RADIATION PROBLEMS 07/18/1998 - 06/30/1999 FY98: \$30,000 Prin. Invest.: D I HAIHARAN Tech. Officer: LERC/J R SCOTT CASE Category: 29 - MATH/COMPUTER SCI, OTHER | 8032 |
| NAG 1 2067 UNIVERSITY OF AKRON NEW RTM/R1 RESINS FOR THE HSCT 05/28/1998 - 05/31/1999 FY98: \$35,000 Prin. Invest.: F W HARRIS Tech. Officer: LARC/P M HERGENROTHER, LARC/J W CONNELL CASE Category: 12 - CHEMISTRY | 8025 | NAG 3 2211 UNIVERSITY OF AKRON GENERAL CRACK PROBLEMS IN FUNCTIONALLY GRADED MATERIALS 09/24/1998 - 01/21/1999 FY98: \$42,000 Prin. Invest.: W K BINIENDA Tech. Officer: LERC/G R HALFORD CASE Category: 41 - AERONAUTICAL ENGR | 8033 |

NCC 3 283 UNIVERSITY OF AKRON **8034**
SHOCK POSITION SENSING: THEORY, EXPERIMENT AND DESIGN
 11/17/1992 - 12/31/1997 FY98: -\$1,787 Total: \$165,840
Prin. Invest.: S I HARIHARAN
Tech. Officer: LERC/G ADAUIOVSKY
CASE Category: 45 - ELECTRICAL ENGR

NCC 3 441 UNIVERSITY OF AKRON **8035**
COMPUTATIONAL TOOL AND TECHNIQUES FOR THE MACRO/NUCRIMEMECHANICAL ANALYSIS OF COMPOSITE STRUCTURES
 12/14/1995 - 03/07/1999 FY98: \$150,000 Total: \$380,919
Prin. Invest.: A F SALEEB
Tech. Officer: LERC/S M ARNOLD
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 451 UNIVERSITY OF AKRON **8036**
DEVELOPMENT OF A CRYSTAL GROWTH CONTROLLER FUNDING
 02/07/1996 - 11/30/1997 FY98: \$1 Total: \$63,011
Prin. Invest.: C BAUTR
Tech. Officer: LERC/W DUVAL
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 494 UNIVERSITY OF AKRON **8037**
SOFTWARE & HARDWARE DEVELOPMENT IN COMPUTATIONAL MATERIALS SCIENCE
 08/09/1996 - 06/08/1999 FY98: \$128,141 Total: \$374,489
Prin. Invest.: G YOUNG
Tech. Officer: LERC/A CHAIT
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 508 UNIVERSITY OF AKRON **8038**
INTERDISCIPLINARY RESEARCH IN COMPUTATIONAL FLUID DYNAMICS & CONTROL SYSTEMS
 10/22/1996 - 04/30/1998 FY98: \$0 Total: \$67,284
Prin. Invest.: T T HARTLEY
Tech. Officer: LERC/K J MELCHER
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 526 UNIVERSITY OF AKRON **8039**
UTILIZATION OF FRACTIONAL ORDER SYSTEMS IN CONTROL IN ENGINEERING
 01/06/1997 - 01/06/1999 FY98: \$19,381 Total: \$58,872
Prin. Invest.: T T HARTLEY
Tech. Officer: LERC/C LORENZO
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 545 UNIVERSITY OF AKRON **8040**
DEVELOPMENT OF ADVANCED LIFE PREDICTION & FINITE ELEMENT ANALYSIS TECHNIQUE FOR AEROSPACE COMPONENTS
 02/24/1997 - 01/22/2000 FY98: \$117,425 Total: \$252,455
Prin. Invest.: D C BUCHTHAL, V K ARYA
Tech. Officer: LERC/G R HALFORD
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 547 UNIVERSITY OF AKRON **8041**
ECONOMICAL PROCESSING AND IMPROVED RELIABLE HIGH TEMPERATURE PERFORMANCE OF POLYIMIDE-CARBON FIBER
 02/25/1997 - 05/01/1998 FY98: \$49,697 Total: \$181,240
Prin. Invest.: R K EBY
Tech. Officer: LERC/M MEADOR
CASE Category: 13 - PHYSICS

NCC 3 567 UNIVERSITY OF AKRON **8042**
DETERMINATION OF OPTIMUM HEATING ZONE LENGTH & CONTROL TEMPERATURE COUPLE PLACEMENT FOR GRIDMAN CRYSTAL G
 07/01/1997 - 09/30/1999 FY98: \$0 Total: \$33,999
Prin. Invest.: C BATUR
Tech. Officer: LERC/W B DUVAL
CASE Category: 46 - MECHANICAL ENGR

NCC 3 578 UNIVERSITY OF AKRON **8043**
ENHANCEMENTS TO NURBS-BASED FEA AIRFOIL MODLER-SABER
 10/24/1997 - 10/16/1998 FY98: \$52,602 Total: \$52,602
Prin. Invest.: A F SALEEB, D A TROWBRIDGE
Tech. Officer: LERC/S A THORP
CASE Category: 46 - MECHANICAL ENGR

NCC 3 579 UNIVERSITY OF AKRON **8044**
DESIGN ANALYSIS AND MATERIAL MODELING FOR CERAMIC MATRIX COMPOSITE MATERIALS
 10/31/1997 - 10/31/1998 FY98: \$107,302 Total: \$107,302
Prin. Invest.: W BINIENDA
Tech. Officer: LERC/N N NEMETH
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 608 UNIVERSITY OF AKRON **8045**
IMPROVED PROCESSING AND HIGH TEMPERATURE PERFORMANCE OF COMPOSITES
 04/08/1998 - 02/02/1999 FY98: \$140,364 Total: \$140,364
Prin. Invest.: R K EBY
Tech. Officer: LERC/M A MEADOR
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 615 UNIVERSITY OF AKRON **8046**
HIGH TEMPERATURE TESTING AND MODELING OF CERAMIC MATRIX COMPOSITES
 06/12/1998 - 04/30/1999 FY98: \$59,234 Total: \$59,234
Prin. Invest.: W BINIENDA
Tech. Officer: LERC/R T BHATT
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 51182 UNIVERSITY OF AKRON **8047**
GRADUATE STUDENT RESEARCHERS PROGRAM
 09/02/1993 - 12/31/1996 FY98: -\$12,796 Total: \$53,204
Prin. Invest.: M ELBULUK
Tech. Officer: LERC/F MONTEGANI
CASE Category: 45 - ELECTRICAL ENGR

NGT 2 52228 UNIVERSITY OF AKRON **8048**
THE DEVELOPMENT OF NEURAL-NETWORK-ENHANCED ELECTRICAL INDEPENDENCE CARDIOGRAPH FOR HEMODYNAMIC.....
 08/14/1997 - 08/31/1998 FY98: \$22,000 Total: \$44,000
Prin. Invest.: B C TAYLOR
Tech. Officer: ARC/P S COWINGS
CASE Category: 49 - ENGINEERING, OTHER

NGT 3 52327 UNIVERSITY OF AKRON **8049**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/10/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: R K EBY
Tech. Officer: LERC/F J MONTEGANI
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

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| NGT 3 52344 UNIVERSITY OF AKRON 8050 GRADUATE STUDENT RESEARCHERS PROGRAM 07/28/1998 – 09/30/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> R K EBY <i>Tech. Officer:</i> LERC/F J MONTEGANI CASE Category: 49 – ENGINEERING, OTHER | NAG 3 1987 UNIVERSITY OF CINCINNATI 8058 INVESTIGATION OF SIMPLEX NOZZLES FOR ADVANCED COMBUSTORS 11/06/1996 – 10/1/1999 FY98: \$62,261 Total: \$132,716 <i>Prin. Invest.:</i> S M JENG <i>Tech. Officer:</i> LEIC/R R TACINA CASE Category: 41 – AERONAUTICAL ENGR |
| NAG 1 1280 UNIVERSITY OF CINCINNATI 8051 STRUCTURAL SIMILITUDE AND SCALING LAWS – FDP 06/12/1991 – 06/03/1998 FY98: \$27,991 Total: \$344,619 <i>Prin. Invest.:</i> G J SIMITSES <i>Tech. Officer:</i> LARC/J H STARNES CASE Category: 41 – AERONAUTICAL ENGR | NAG 3 2003 UNIVERSITY OF CINCINNATI 8059 DEVELOPMENT OF AN EXPERIMENTAL DATABASE TO VALIDATE COMPRESSOR-FACE BOUNDARY CONDITIONS USED IN UN 01/06/1997 – 12/1/1997 FY98: \$0 Total: \$69,888 <i>Prin. Invest.:</i> M S J BEN <i>Tech. Officer:</i> LERC/G L COLE, LERC/R A BLECH CASE Category: 41 – AERONAUTICAL ENGR |
| NAG 1 1553 UNIVERSITY OF CINCINNATI 8052 RNS APPLICATIONS FOR INTERNAL INTERACTING SUB – AND SUPER-SONIC FLOWS NLPN 93-833 11/19/1993 – 05/18/1997 FY98: -\$107 Total: \$92,701 <i>Prin. Invest.:</i> S G RUBIN <i>Tech. Officer:</i> LARC/J J KORTE CASE Category: 41 – AERONAUTICAL ENGR | NAG 3 2087 UNIVERSITY OF CINCINNATI 8060 DATA BASE FOR REALISTIC COMPUTATIONAL MODELING OF INLET/COMPRESSOR INTERFACES DURING RAPID FLOW TRAN 01/16/1998 – 10/31/1999 FY98: \$109,992 Total: \$109,992 <i>Prin. Invest.:</i> M S J BEN <i>Tech. Officer:</i> LERC/G L COLE CASE Category: 41 – AERONAUTICAL ENGR |
| NAG 1 2071 UNIVERSITY OF CINCINNATI 8053 STRUCTURAL SIMILITUDE AND SCALING LAWS 05/20/1998 – 05/31/1999 FY98: \$27,000 Total: \$27,000 <i>Prin. Invest.:</i> G J SIMITSES <i>Tech. Officer:</i> LARC/J H STARNES, JR. CASE Category: 41 – AERONAUTICAL ENGR | NAG 5 6946 UNIVERSITY OF CINCINNATI 8061 ORDOVICIAN BIO DIVERSITY: GEOGRAPHY AND ENVIRONMENT 02/12/1998 – 03/31/1999 FY98: \$50,000 Total: \$50,000 <i>Prin. Invest.:</i> A I MILLER <i>Tech. Officer:</i> GSF/J M MEYER CASE Category: 41 – ASTRONOMY |
| NAG 3 1178 UNIVERSITY OF CINCINNATI 8054 RNS PROCEDURES FOR UNSTEADY INLET FLOW 06/07/1990 – 12/31/1997 FY98: \$0 Total: \$189,232 <i>Prin. Invest.:</i> S G RUBIN, P K KHOSLA <i>Tech. Officer:</i> LERC/T J BENSON CASE Category: 41 – AERONAUTICAL ENGR | NAG 5 7098 UNIVERSITY OF CINCINNATI 8062 USING LANDSAT DATA TO DEVELOP AN IMAGE BASED LOGISTIC REGRESSION MODEL FOR PREDICTING DEFORESTATION 05/28/1998 – 11/30/1999 FY98: \$153,878 Total: \$153,878 <i>Prin. Invest.:</i> R C F ROHN <i>Tech. Officer:</i> GSF/D E WICKLAND CASE Category: 33 – ENVIRONMENTAL SCI, OTHER |
| NAG 3 1706 UNIVERSITY OF CINCINNATI 8055 A NOVEL SILICON MICROMACHINED INTEGRATED MICRO THERMAL MANAGEMENT SYSTEM 04/13/1995 – 04/12/1999 FY98: \$61,768 Total: \$336,436 <i>Prin. Invest.:</i> M J KAZMIERCZAK, F M GERNER, H T HENDERSON <i>Tech. Officer:</i> LERC/K W BAKER, LERC/J CALOGEVAS CASE Category: 46 – MECHANICAL ENGR | NAG 9 924 UNIVERSITY OF CINCINNATI 8063 OFF NOMINAL PERFORMANCE ANALYSIS OF FUTURE EVA MANEUVERING SYSTEMS 01/29/1997 – 11/02/1999 FY98: \$0 Total: \$59,876 <i>Prin. Invest.:</i> T W LEWIS <i>Tech. Officer:</i> JSC/L W LEWIS CASE Category: 41 – AERONAUTICAL ENGR |
| NAG 3 1785 UNIVERSITY OF CINCINNATI 8056 EMERGING ETHNIC ENGINEERS PROGRAM 07/07/1995 – 06/30/1998 FY98: \$0 Total: \$208,479 <i>Prin. Invest.:</i> E N PRATHER <i>Tech. Officer:</i> LERC/S A MERRITT, LERC/J E BOYD CASE Category: 99 – MULTI INTERDISCIPL, OTHER | NAGW 1407 UNIVERSITY OF CINCINNATI 8064 UNIVERSITY SPACE ENGINEERING RESEARCH CENTER 08/17/1988 – 01/30/1998 FY98: \$0 Total: \$8,409,949 <i>Prin. Invest.:</i> L M GILES <i>Tech. Officer:</i> HQ/S C HARTMAN CASE Category: 41 – ENGINEERING, OTHER |
| NAG 3 1963 UNIVERSITY OF CINCINNATI 8057 SHOCK-ASSOCIATED NOISE IN JETS & NOZZLES 09/04/1996 – 01/31/1998 FY98: \$0 Total: \$60,322 <i>Prin. Invest.:</i> R R MANKBADI, A HAMED <i>Tech. Officer:</i> LERC/L A POVINELLI CASE Category: 41 – AERONAUTICAL ENGR | NAGW 3307 UNIVERSITY OF CINCINNATI 8065 ORDOVICIAN BIO DIVERSITY: GEOGRAPHY AND ENVIRONMENT 12/31/1992 – 08/31/1997 FY98: \$0 Total: \$199,893 <i>Prin. Invest.:</i> A MILLER <i>Tech. Officer:</i> HQ/J J RUMMEL CASE Category: 31 – GEOLOGICAL SCIENCE |

NCC 2 950 UNIVERSITY OF CINCINNATI **8066**
ADVANCED TRAJECTORY ANALYSIS WITH APPLICATION TO A IR TRAFFIC CONTROL
 05/17/1996 – 10/31/1998 FY98: \$39,716 Total: \$78,324
Prin. Invest.: G L SLATER, NONE
Tech. Officer: ARC/H N SWENSON, ARC/T J DAVIS
CASE Category: 41 – AERONAUTICAL ENGR

NCCW 35 UNIVERSITY OF CINCINNATI **8067**
TANK PRESSURE/NCCW35
 02/16/1994 – 06/30/1997 FY98: –\$113 Total: \$199,775
Prin. Invest.: J M ALBAYYARI
Tech. Officer: HQ/M NALL
CASE Category: 13 – PHYSICS

NGT 10014 UNIVERSITY OF CINCINNATI **8068**
NGT-10014/UNIV CINCINNATI; AEROSPACE ENGINEERING CURRICULUM FOR THE 21ST CENTURY
 11/17/1993 – 09/30/1996 FY98: –\$365 Total: \$74,634
Prin. Invest.: B K WALKER
Tech. Officer: HQ/L KEEFER
CASE Category: 41 – AERONAUTICAL ENGR

NGT 10031 UNIVERSITY OF CINCINNATI **8069**
A TRAINING PROPOSAL FOR UNIVERSITY SPACE ENGINEERING RESEARCH CENTER GRADUATE STUDENTS
 12/16/1994 – 10/01/1998 FY98: \$0 Total: \$339,148
Prin. Invest.: L P COOPER
Tech. Officer: HQ/T R BRUNEEL
CASE Category: 43 – CHEMICAL ENGR

NGT 30321 UNIVERSITY OF CINCINNATI **8070**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/10/1995 – 03/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: S ISLAM
Tech. Officer: HQ/A CJANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 30326 UNIVERSITY OF CINCINNATI **8071**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/05/1995 – 03/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: S ISLAM
Tech. Officer: HQ/G ASRAR, HQ/R A SCHIFFER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 51234 UNIVERSITY OF CINCINNATI **8072**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/07/1994 – 06/30/1997 FY98: –\$9,674 Total: \$34,326
Prin. Invest.: V J KAPOOR
Tech. Officer: LERC/F MONTEGANI
CASE Category: 45 – ELECTRICAL ENGR

NGT 51320 UNIVERSITY OF CINCINNATI **8073**
GRADUATE STUDENT RESEARCHERS PROGRAM
 09/08/1994 – 02/28/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: B WALKER
Tech. Officer: LERC/F MONTEGANI
CASE Category: 41 – AERONAUTICAL ENGR

NGT 51367 UNIVERSITY OF CINCINNATI **8074**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/16/1994 – 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: S A KHAN
Tech. Officer: HQ/G LESANE
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NGT 51639 UNIVERSITY OF CINCINNATI **8075**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/08/1996 – 08/31/1997 FY98: –\$5 Total: \$21,995
Prin. Invest.: D L RICHARDSON
Tech. Officer: HQ/D HOLLAND
CASE Category: 46 – MECHANICAL ENGR

NGT 1 52140 UNIVERSITY OF CINCINNATI **8076**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/26/1996 – 09/30/1997 FY98: –\$16,500 Total: \$27,500
Prin. Invest.: S K DURLAK
Tech. Officer: LARC/B E ANDERSON, LARC/J M HOELL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 2 52205 UNIVERSITY OF CINCINNATI **8077**
THE DEPARTURE PROBLEM IN AIR TRAFFIC MANAGEMENT: ANALYSIS CONTROL STRATEGIES & IMPLEMENTATION
 09/14/1995 – 08/31/1999 FY98: \$0 Total: \$66,000
Prin. Invest.: G L SLATER, M A BOLENDER
Tech. Officer: ARC/T J DAVIS, ARC/J ERZBERGER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 3 52324 UNIVERSITY OF CINCINNATI **8078**
DEVELOPMENT OF OBJECT ORIENTED SIMULATIONS FOR CONTROL OF DISTRIBUTED PARAMETER SYSTEMS
 08/30/1996 – 02/28/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: K MOORE
Tech. Officer: LERC/D MONTEGANI
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 30049 UNIVERSITY OF CINCINNATI **8079**
USE OF RAINGAGE AND RADAR MEASUREMENTS OF PRECIPITATION AND GROUND VALIDATION OF SATELLITE BA
 09/06/1997 – 08/31/1999 FY98: \$0 Total: \$22,000
Prin. Invest.: S ISLAM
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30058 UNIVERSITY OF CINCINNATI **8080**
THIRD YEAR FUNDING: ANALYZING AND PARAMETERIZING HETEROGENEITY ON LAND SURFACE REPRESENTATIONS & RE
 09/06/1997 – 02/28/1999 FY98: \$0 Total: \$22,000
Prin. Invest.: S ISLAM
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 30108 UNIVERSITY OF CINCINNATI **8081**
SPACE-TIME CHARACTERIZATION OF REMOTELY SENSED SOIL MOISTURE
 02/10/1998 – 09/30/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: S ISLAM
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50040 UNIVERSITY OF CINCINNATI **8082**
A THEORY FOR THE EXACT INTEGRATION OF A REFERENCE L ATTITUDE
PROGRAM FORMULATED AS PERTURBED JACOBI
 08/15/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: P L RICHARDSON
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52801 UNIVERSITY OF CINCINNATI **8083**
GRADSTUDENT RESEARCH PROGRAM
 07/28/1995 - 07/31/1999 FY98: \$22,000 Total: \$88,000
Prin. Invest.: K N GHIA
Tech. Officer: MSFC/P K MCCONNAUGHEY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1327 UNIVERSITY OF DAYTON **8084**
DETERMINATION OF OPERATIONAL AND SUPPORT REQUIREMENTS AND
COSTS DURING CONCEPTUAL DESIGN OF SPACE
 07/26/1991 - 12/31/1997 FY98: \$0 Total: \$366,227
Prin. Invest.: C E EBELING
Tech. Officer: LARC/W D MORRIS
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1919 UNIVERSITY OF DAYTON **8085**
A STUDY OF THE MICROSCALE FLUID PHYSICS IN THE NEAR CONTACT
REGION OF AN EVAPORATING CAP MENISCUS
 07/10/1996 - 08/08/1998 FY98: \$34,000 Total: \$301,351
Prin. Invest.: K P HALLINAN
Tech. Officer: LERC/J C DUH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 4575 UNIVERSITY OF DAYTON **8086**
INTERSTELLAR DIAMOND GRAINS: SYNTHETIC AND NATURAL
 09/12/1997 - 06/30/1999 FY98: \$25,000 Total: \$75,000
Prin. Invest.: D PHELPS
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 9 916 UNIVERSITY OF DAYTON **8087**
DEV PUBLIC DOMAIN FATIGUE CRACK FORMATION SW
 12/13/1996 - 09/01/1998 FY98: \$0 Total: \$201,765
Prin. Invest.: D E TRITSCH
Tech. Officer: JSC/R FOREMAN
CASE Category: 11 - ASTRONOMY

NAS 8 98216 UNIVERSITY OF DAYTON **8088**
A NEW TECHNIQUE FOR ACHIEVING IMPACT VELOCITIES GREATER THAN
10KM'S
 06/01/1998 - 05/30/1999 FY98: \$146,622 Total: \$146,622
Prin. Invest.: A J PIEKUTOWSKI
Tech. Officer: MSFC/G S OLSEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 9 74 UNIVERSITY OF DAYTON **8089**
TRANSHAB HYPERVELOCITY IMPACT TESTS CONDUCTED BY UNIV OF
DAYTON RESEARCH INSTITUTE
 08/13/1998 - 12/31/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: A J PIEKUTOWSKI
Tech. Officer: JSC/E CHRISTIANSEN
CASE Category: 13 - PHYSICS

NAG 3 1307 UNIVERSITY OF TOLEDO **8090**
DETAILED AND REDUCED HYDROCARBON OXIDATION CHEMISTRY
 11/19/1991 - 12/4/1996 FY98: -\$21 Total: \$543,861
Prin. Invest.: K J DEWITT
Tech. Officer: LERC/M J RABINOWITZ, LERC/E A LEZBERG
CASE Category: 12 - CHEMISTRY

NAG 3 1718 UNIVERSITY OF TOLEDO **8091**
VLSI IMPLEMENTATION OF COMMUNICATIONS SYSTEMS
 03/23/1995 - 03/11/1999 FY98: \$61,390 Total: \$246,781
Prin. Invest.: S C KWATRA, M M JAMALI
Tech. Officer: LERC/R E JONES
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1750 UNIVERSITY OF TOLEDO **8092**
AN OBJECT-ORIENTED MODEL FOR SIMULATION
 05/24/1995 - 08/11/1998 FY98: \$0 Total: \$136,137
Prin. Invest.: A AFJENT
Tech. Officer: LERC/G J FOLLEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1803 UNIVERSITY OF TOLEDO **8093**
DEVELOPMENT OF AN AEROELASTIC ANALYSIS INCLUDING A VISCOUS
FLOW MODEL
 01/23/1996 - 10/31/1997 FY98: \$0 Total: \$140,918
Prin. Invest.: T G KEITH
Tech. Officer: LERC/C A KURKOV
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1946 UNIVERSITY OF TOLEDO **8094**
KNOWLEDGE DISCOVERY PROCESS FOR CHARACTERIZATION OF
MATERIALS FAILURE MECHANISM
 08/09/1996 - 12/31/1998 FY98: \$20,000 Total: \$66,171
Prin. Invest.: K J CLOS
Tech. Officer: LERC/G Y BAAKUNI
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1967 UNIVERSITY OF TOLEDO **8095**
BANDGAP ENGINEERING AND CIRCUIT DESIGN FOR LOW TEMPERATURE
SPACE-BORNE POWER ELECTRONICS
 09/07/1996 - 01/11/1999 FY98: \$50,000 Total: \$105,386
Prin. Invest.: Y J KAPOOR, M A SMITH
Tech. Officer: LERC/R L PATTERSON, LERC/J E DICKMAN
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2041 UNIVERSITY OF TOLEDO **8096**
INVESTIGATION OF A METHOD TO REDUCE CAVITATION DAMAGE IN DIE-
SEL ENGINE BEARINGS
 04/29/1997 - 01/01/1998 FY98: -\$1,223 Total: \$38,777
Prin. Invest.: T G KEITH, JR.
Tech. Officer: LERC/D E BREWE
CASE Category: 3 - PHYSICS

NAG 3 2177 UNIVERSITY OF TOLEDO **8097**
INTERGRATION OF DATA SHARING WITH PROPULSION SYSTEMS SIM-
ULATION MODELS
 06/29/1998 - 05/11/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: A A AFJEH
Tech. Officer: LERC/G J FOLLEN
CASE Category: 12 - COMPUTER SCIENCE

NAG 3 2181 UNIVERSITY OF TOLEDO **8098**
DATA MINING & OPTIMIZATION TOOLS FOR DEVELOPING ENGINE
PARAMETER MODELS
 07/09/1998 – 08/30/1998 FY98: \$5,000 Total: \$5,000
Prin. Invest.: A P DHAWAN
Tech. Officer: LERC/D SIMON
CASE Category: 49 – ENGINEERING, OTHER

NAG 5 2460 UNIVERSITY OF TOLEDO **8099**
MAIN SEQUENCE O STARS IN NGC 6231: ENHANCED WINDS
 01/11/1994 – 12/31/1996 FY98: –\$1,500 Total: \$0
Prin. Invest.: N MORRISON
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3248 UNIVERSITY OF TOLEDO **8100**
THE EFFECT OF ROTATION ON STELLAR WINDS: ASYMMETRIES AND
BIPOLAR STRUCTURES IN CIRCUMS
 10/09/1996 – 08/31/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: J E BJORKMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3367 UNIVERSITY OF TOLEDO **8101**
RADIATIVE TRANSFER ANALYSIS OF DUSTY ASTRONOMICAL SYSTEMS
 08/28/1996 – 12/31/1997 FY98: \$0 Total: \$94,078
Prin. Invest.: A N WITT
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3447 UNIVERSITY OF TOLEDO **8102**
EFFECTS OF ROTATION AND REVISED IONIZATION BALANCE MASS-LOSS
RATES FOR B STARS
 10/10/1996 – 10/14/1998 FY98: \$50,000 Total: \$100,000
Prin. Invest.: K BJORKMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3790 UNIVERSITY OF TOLEDO **8103**
OPTICAL PROPERTIES OF CARBONACEOUS GRAIN MANTLE MATERIALS
 03/10/1997 – 02/28/1999 FY98: \$39,345 Total: \$104,996
Prin. Invest.: D N WITT
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 4338 UNIVERSITY OF TOLEDO **8104**
NEAR-IR EMISSION AND ABSORPTION CHARACTERISTICS OF MANTLE
MATERIALS
 04/21/1997 – 03/31/1999 FY98: \$30,333 Total: \$82,333
Prin. Invest.: D N WITT
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 – ASTRONOMY

NAG 5 4957 UNIVERSITY OF TOLEDO **8105**
THE EVOLUTION OF INTERSTELLAR GAS – MASSIVE STARS
 06/27/1997 – 06/30/1999 FY98: \$80,000 Total: \$157,000
Prin. Invest.: S R FEDERMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 6624 UNIVERSITY OF TOLEDO **8106**
MAPPING THE DIFFUSE GALACTIC LIGHT AND EXTENDED RED EMISSION
WITH PIONEER10 AND 11
 11/20/1997 – 12/31/1998 FY98: \$48,876 Total: \$48,876
Prin. Invest.: A WITT
Tech. Officer: GSFC/J LING
CASE Category: 11 – ASTRONOMY

NAG 5 6729 UNIVERSITY OF TOLEDO **8107**
OSCILLATOR STRENGTHS FOR ULTRAVIOLET ATOMIC AND MOLECULAR
TRANSITIONS
 12/11/1997 – 12/31/1998 FY98: \$40,000 Total: \$40,000
Prin. Invest.: S R FEDERMAN
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 8 1380 UNIVERSITY OF TOLEDO **8108**
FOR RESEARCH ENTITLED "SEARCHING FOR THE BEST PROTEIN CRYSTALS"
 06/19/1997 – 12/30/2000 FY98: \$133,500 Total: \$185,500
Prin. Invest.: G BORGOTAH
Tech. Officer: MSFC/C TALLEY, MSFC/M VLASSE
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 3168 UNIVERSITY OF TOLEDO **8109**
RADIATIVE TRANSFER ANALYSIS OF DUSTY ASTRONOMICAL SYSTEMS
 08/11/1992 – 09/30/1997 FY98: –\$14,176 Total: \$336,528
Prin. Invest.: A WITT
Tech. Officer: HQ/G R RIEGLER
CASE Category: 11 – ASTRONOMY

NAGW 3840 UNIVERSITY OF TOLEDO **8110**
NAGW-3840/B UNIV. TOLEDO: "OSCILLATOR STRENGTHS FOR ULTRAVIOLET
ATOMIC TRANSITIONS"
 12/21/1993 – 09/30/1997 FY98: –\$2,525 Total: \$198,475
Prin. Invest.: S R FEDERMAN
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 – ASTRONOMY

NCC 2 5215 UNIVERSITY OF TOLEDO **8111**
EVALUATION OF CATALYTIC WET OXIDATION FOR THE ULTIMATE CONVERSION
OF SOLID WASTES
 05/13/1997 – 06/30/1999 FY98: \$0 Total: \$40,000
Prin. Invest.: M ABRAHAM
Tech. Officer: ARC/J FISHER
CASE Category: 43 – CHEMICAL ENGR

NCC 2 5220 UNIVERSITY OF TOLEDO **8112**
OXYGEN SCRUBBING IN PLANT GROWTH CHAMBERS USING SOLID OXIDE
ELECTROLYZERS
 06/11/1997 – 11/30/1997 FY98: \$0 Total: \$42,154
Prin. Invest.: K R SRIDHAR
Tech. Officer: ARC/H W JONES
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 3 288 UNIVERSITY OF TOLEDO **8113**
ENVIRONMENTAL EFFECTS ON BOUNDARY LAYERS TRANSITION
 12/11/1992 – 04/22/1998 FY98: \$22,373 Total: \$403,911
Prin. Invest.: K J DEWITT, K H SOHN
Tech. Officer: LERC/F F SIMON
CASE Category: 46 – MECHANICAL ENGR

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| <p>NCC 3 436 UNIVERSITY OF TOLEDO 8114 HYDRODYNAMIC ANALYSES AND EVALUATION OF NEW FLUID BEARING CONCEPTS 11/15/1995 - 03/18/1997 FY98: -\$96 Total: \$129,911 <i>Prin. Invest.:</i> T G KEITH <i>Tech. Officer:</i> LERC/J F WALKER CASE Category: 46 - MECHANICAL ENGR</p> | <p>NCC 3 558 UNIVERSITY OF TOLEDO 8122 MAGNETIC FLUID FRICTION AND WEAR BEHAVIOR 05/06/1997 - 11/17/1997 FY98: -\$2,382 Total: \$12,618 <i>Prin. Invest.:</i> T G KEITH <i>Tech. Officer:</i> LERC/R L FUSARO CASE Category: 46 - MECHANICAL ENGR</p> |
| <p>NCC 3 446 UNIVERSITY OF TOLEDO 8115 AEROELASTIC STABILITY AND RESPONSE OF ROTATING STRUCTURES 01/08/1996 - 11/30/1997 FY98: \$0 Total: \$166,000 <i>Prin. Invest.:</i> T G KEITH <i>Tech. Officer:</i> LERC/O MEHMED CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NCC 3 565 UNIVERSITY OF TOLEDO 8123 MARS PATHFINDER WHEEL ABRASION EXPERIMENT GROUND 07/01/1997 - 06/30/1998 FY98: \$0 Total: \$16,000 <i>Prin. Invest.:</i> T G KEITH <i>Tech. Officer:</i> LERC/R L FUSARO CASE Category: 46 - MECHANICAL ENGR</p> |
| <p>NCC 3 458 UNIVERSITY OF TOLEDO 8116 TRIBOLOGY STUDIES AT THE UNIVERSITY OF TOLEDO 03/19/1996 - 06/30/1997 FY98: -\$857 Total: \$15,583 <i>Prin. Invest.:</i> T G KEITH <i>Tech. Officer:</i> LERC/R L FUSARO CASE Category: 46 - MECHANICAL ENGR</p> | <p>NCC 3 584 UNIVERSITY OF TOLEDO 8124 OPTICAL POWER EXTRACTORS AND CONCENTRATORS OPTICAL POWER EXTRACTORS AND CONCENTRATORS 12/18/1997 - 11/04/1999 FY98: \$33,956 Total: \$33,956 <i>Prin. Invest.:</i> S GILES <i>Tech. Officer:</i> LERC/G ADAWOVSKY CASE Category: 13 - PHYSICS</p> |
| <p>NCC 3 513 UNIVERSITY OF TOLEDO 8117 IMPROVED MODEL FOR THE OXIDATIVE PYROLYSIS OF HYDROCARBON FUELS 11/06/1996 - 10/31/1999 FY98: \$111,971 Total: \$217,707 <i>Prin. Invest.:</i> K J DEWITT <i>Tech. Officer:</i> LERC/K P KUNDU CASE Category: 12 - CHEMISTRY</p> | <p>NCC 3 596 UNIVERSITY OF TOLEDO 8125 APPLICATION OF AEROELASTIC SOLVERS BASED ON NAVIER-STOKES EQUATIONS 01/14/1998 - 12/04/1998 FY98: \$99,594 Total: \$99,594 <i>Prin. Invest.:</i> T G KEITH <i>Tech. Officer:</i> LERC/D JANETZKE CASE Category: 41 - AERONAUTICAL ENGR</p> |
| <p>NCC 3 523 UNIVERSITY OF TOLEDO 8118 COMPUTATION OF REACTING FLOWS IN COMBUSTION PROCESSES USING UNSTRUCTURED GRIDS 12/26/1996 - 01/04/1999 FY98: \$114,508 Total: \$220,694 <i>Prin. Invest.:</i> T G KEITH <i>Tech. Officer:</i> LERC/R STUBBS CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NCC 3 604 UNIVERSITY OF TOLEDO 8126 DEVELOPMENT OF AN AEROELASTIC ANALYSIS INCLUDING A VISCOUS FLOW MODEL 03/27/1998 - 12/04/1998 FY98: \$58,461 Total: \$58,461 <i>Prin. Invest.:</i> J G KEITH <i>Tech. Officer:</i> LERC/A P KURKOR CASE Category: 41 - AERONAUTICAL ENGR</p> |
| <p>NCC 3 524 UNIVERSITY OF TOLEDO 8119 COMPUTATIONAL SIMULATION OF COMPOSITE BEHAVIOR 12/26/1996 - 11/23/1998 FY98: \$108,079 Total: \$211,269 <i>Prin. Invest.:</i> T G KEITH <i>Tech. Officer:</i> LERC/P MURTHY CASE Category: 49 - ENGINEERING, OTHER</p> | <p>NCC 3 605 UNIVERSITY OF TOLEDO 8127 AEROELASTIC STABILITY AND RESPONSE OF ROTATING STRUCTURES 04/03/1998 - 03/08/1999 FY98: \$100,295 Total: \$100,295 <i>Prin. Invest.:</i> T G KEITH <i>Tech. Officer:</i> LERC/O MEHMED CASE Category: 41 - AERONAUTICAL ENGR</p> |
| <p>NCC 3 527 UNIVERSITY OF TOLEDO 8120 AEROELASTIC ANALYSIS FOR AEROPROPULSION APPLICATIONS 12/26/1996 - 12/18/1998 FY98: \$56,454 Total: \$133,122 <i>Prin. Invest.:</i> T G KEITH, JR. <i>Tech. Officer:</i> LERC/O MEHMED, LERC/G L STEFKO CASE Category: 46 - MECHANICAL ENGR</p> | <p>NCC 3 616 UNIVERSITY OF TOLEDO 8128 STUDY OF WAVE JOURNAL BEARINGS WITH LIQUID LUBRICANTS 05/18/1998 - 11/23/1998 FY98: \$54,812 Total: \$54,812 <i>Prin. Invest.:</i> T G KEITH, F DIMOFTE <i>Tech. Officer:</i> LERC/M P PROCTOR CASE Category: 46 - MECHANICAL ENGR</p> |
| <p>NCC 3 553 UNIVERSITY OF TOLEDO 8121 EXPERIMENTAL EVALUATION OF JOURNAL BEARING STABILITY & NEW GAS WAVE BEARING MATERIAL 04/16/1997 - 01/31/1998 FY98: \$22,594 Total: \$94,781 <i>Prin. Invest.:</i> T G KEITH <i>Tech. Officer:</i> LERC/M P PROCTOR CASE Category: 46 - MECHANICAL ENGR</p> | <p>NCC 3 639 UNIVERSITY OF TOLEDO 8129 EXPERIMENTAL & ANALYTICAL INVESTIGATION OF SOLID-LUBRICATED BACKUP BEARINGS 07/28/1998 - 07/07/1999 FY98: \$15,000 Total: \$15,000 <i>Prin. Invest.:</i> T G KEITH <i>Tech. Officer:</i> LERC/R L FUSARO CASE Category: 46 - MECHANICAL ENGR</p> |

NCC 8 134 UNIVERSITY OF TOLEDO **8130**
INVESTIGATION OF THE GROWTH MECHANISM OF TETRAGONAL LYSO-
ZYME CRYSTALS
 03/13/1997 - 03/13/2000 FY98: \$107,032 Total: \$185,911
Prin. Invest.: A NADARAJAH
Tech. Officer: MSFC/M L PUSEY
CASE Category: 12 - CHEMISTRY

NGT 3 52342 UNIVERSITY OF TOLEDO **8131**
MICROMACHINED CANTILEVERED TRANSMISSION LINE SWITC HES FOR
MICROWAVE APPLICATIONS
 07/18/1998 - 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: D J KAPOOR
Tech. Officer: LERC/D MONTEGANI
CASE Category: 49 - ENGINEERING, OTHER

NCC 3 535 WILBERFORCE UNIVERSITY **8132**
WILBERFORCE POWER TECHNOLOGY IN EDUCATION PROGRAM
 01/27/1997 - 12/06/1999 FY98: \$105,000 Total: \$205,000
Prin. Invest.: H C SMITHERMAN
Tech. Officer: LERC/A F HEPP
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 2036 WITTENBERG UNIVERSITY **8133**
STATIC & DYNAMICS CHARACTERIZATION OF DEVELOPMENTAL 4H-SIC
THYRISTORS
 04/16/1997 - 01/01/1998 FY98: \$0 Total: \$23,888
Prin. Invest.: A J FRASCA
Tech. Officer: LERC/G E SCHWARZE
CASE Category: 13 - PHYSICS

NAG 2 1237 WRIGHT STATE UNIVERSITY **8134**
ROLES FOR TECHNOLOGY IN THE FACILITATION OF DISTURBED WORK
IN COMPLEX DYNAMIC DOMAINS
 07/16/1998 - 12/31/1998 FY98: \$30,000 Total: \$30,000
Prin. Invest.: V L SHALIN
Tech. Officer: ARC/W J CLANCEY
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 1489 WRIGHT STATE UNIVERSITY **8135**
RELIABILITY BASED STRUCTURAL OPTIMIZATION
 04/16/1993 - 11/30/1997 FY98: \$0 Total: \$222,000
Prin. Invest.: R GRANDHI
Tech. Officer: LERC/D A HOPKINS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2039 WRIGHT STATE UNIVERSITY **8136**
QUASI-THREE DIMENSIONAL CASCADE AERODYNAMIC ANALYSIS FOR A
TURBOMACHINERY COMPONENT DESIGN SYSTEM
 04/23/1997 - 11/10/1997 FY98: \$0 Total: \$15,090
Prin. Invest.: J M WOLFF
Tech. Officer: LERC/O MEHMED
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 4188 WRIGHT STATE UNIVERSITY **8137**
MODEL STUDIES OF EXCITED STATES OF N₂ AND N₂⁺ IN THE IONOSPHERE
 03/27/1997 - 03/31/2000 FY98: \$34,914 Total: \$101,808
Prin. Invest.: D L FOX
Tech. Officer: GSFC/M M MELLOTT, SR
CASE Category: 13 - PHYSICS

NAG 5 6557 WRIGHT STATE UNIVERSITY **8138**
MTGCM STUDIES OF THE MARTIAN THERMOSPHERE-IONOSPHERE
 12/08/1997 - 06/30/1999 FY98: \$20,219 Total: \$20,219
Prin. Invest.: D FOX
Tech. Officer: GSFC/D BEEBEE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 5229 WRIGHT STATE UNIVERSITY **8139**
RESEARCH (MTGCM)
 10/09/1996 - 09/30/1997 FY98: \$0 Total: \$18,880
Prin. Invest.: J L FOX
Tech. Officer: HQ/J BERGSTRAHL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30081 WRIGHT STATE UNIVERSITY **8140**
AEROSPACE MEDICINE TRAINING PROGRAM
 09/11/1997 - 12/31/1998 FY98: \$610,192 Total: \$710,192
Prin. Invest.: S R MOHLER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 50213 WRIGHT STATE UNIVERSITY **8141**
THREE-DIMENSIONAL AUDIO PRESENTATION SYSTEM EFFECTIVENESS
IN HYPERGRAVITY AND HYPOGRAVITY
 07/22/1998 - 08/31/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R H GILKEY *Prin. Invest.:* NONE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 69 - PSYCHOLOGY, OTHER

NGT36 24790 WRIGHT STATE UNIVERSITY **8142**
AEROSPACE MEDICINE RESIDENCY PROGRAM
 07/01/1978 - 06/30/1999 FY98: \$0 Total: \$7,598,151
Prin. Invest.: S MOHLER
Tech. Officer: HQ/F D EVANS, HQ/A E NICOGOSSIAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1108 YOUNGSTOWN STATE UNIVERSITY **8143**
JOVE
 10/21/1994 - 08/31/1998 FY98: \$0 Total: \$112,797
Prin. Invest.: J ALAM, R BEIERSDORFER, D ROST
Tech. Officer: MSFC/F SIX
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

OKLAHOMA

NAG 5 6582 MURRAY STATE COLLEGE - OKLA. **8144**
HYPERSPECTRAL REMOTE SENSING AND ECOLOGICAL MODELING
RESEARCH & EDUCATION AT THE MID-AMERICA REMOTE
 12/08/1997 - 10/31/1998 FY98: \$63,830 Total: \$63,830
Prin. Invest.: H CETIN
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 3 1613 OKLAHOMA STATE UNIVERSITY **8145**
LIGHT SCATTERING STUDIES OF RELATIVE MOTIONS OF SOLID PAR-
TICLES IN TURBULENT FLOWS
 07/01/1994 - 08/31/1997 FY98: \$5,218 Total: \$139,999
Prin. Invest.: P TONET, W I GOLDBURG
Tech. Officer: LERC/D F CHAO
CASE Category: 13 - PHYSICS

NAG 3 1624 OKLAHOMA STATE UNIVERSITY **8146**
COLLOIDS AND NUCLEATION
 06/24/1994 - 09/30/1997 FY98: \$6,913 Total: \$95,039
 Prin. Invest.: B J ACKERSON
 Tech. Officer: LERC/G A ZIMMERLI
 CASE Category: 13 - PHYSICS

NAG 3 1852 OKLAHOMA STATE UNIVERSITY **8147**
**STUDIES OF PARTICLES SEDIMENTATION BY NOVEL SCATTE RING TECH-
 NIQUE**
 05/01/1996 - 04/30/2000 FY98: \$39,000 Total: \$206,000
 Prin. Invest.: O TONG, B ACKERSON, NONE
 Tech. Officer: LERC/B SINGH
 CASE Category: 13 - PHYSICS

NAG 4 110 OKLAHOMA STATE UNIVERSITY **8148**
**ACCELERATED ESTIMATES OF AEROSERVOELASTIC PARAMETERS USING
 COMPUTATIONAL FLUID DYNAMICS**
 01/31/1997 - 12/31/1997 FY98: -\$22 Total: \$44,958
 Prin. Invest.: A S ARENA, JR.
 Tech. Officer: DFRC/L S VOELKER
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 154 OKLAHOMA STATE UNIVERSITY **8149**
**AEROSERVOELASTIC AND FLIGHT DYNAMICS ANALYSIS USIN COMPUTA-
 TIONAL FLUID DYNAMICS**
 03/30/1998 - 03/31/1999 FY98: \$21,999 Total: \$21,999
 Prin. Invest.: A ARENA, JR.
 Tech. Officer: DFRC/K K GUPTA
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 7451 OKLAHOMA STATE UNIVERSITY **8150**
**TERRESTRIAL ENVIRONMENTAL VARIABLES DERIVED FROM EOS PLAT-
 FORM SENSORS**
 07/09/1998 - 07/31/2001 FY98: \$14,410 Total: \$14,410
 Prin. Invest.: S J STADLER
 Tech. Officer: GSFC/D E WICKLAND
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NASW 5043 OKLAHOMA STATE UNIVERSITY **8151**
OPERATION OF AEROSPACE EDUCATION SERVICES PROGRAM
 09/25/1995 - 09/30/1999 FY98: \$6,212,081 Total: \$20,087,950
 Prin. Invest.: K WIGGINS
 Tech. Officer: HQ/L BILBROUGH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 185 OKLAHOMA STATE UNIVERSITY **8152**
TEACHING FROM SPACE PROGRAM
 04/03/1997 - 11/30/1998 FY98: \$675,006 Total: \$1,411,163
 Prin. Invest.: K E WIGGINS
 Tech. Officer: GSFC/P L MOUNTJOY
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCCW 5 OKLAHOMA STATE UNIVERSITY **8153**
NASA'S TEACHER IN SPACE PROJECT
 10/16/1985 - 09/30/1997 FY98: \$0 Total: \$6,502,506
 Prin. Invest.: K WIGGINS
 Tech. Officer: HQ/L BILBROUGH
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 4 52402 OKLAHOMA STATE UNIVERSITY **8154**
**COMPUTATIONAL AEROSERVOELASTIC ANALYSIS OF HYPERSONIC
 VEHICLE CONFIGURATIONS**
 07/16/1996 - 07/31/1999 FY98: \$22,000 Total: \$66,000
 Prin. Invest.: D S ARENA, JR.
 Tech. Officer: DFRC/K GUPTA, DFRC/L S VOELKER
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 6231 ORAL ROBERTS UNIVERSITY **8155**
**THE DEVELOPMENT OF AN EXPERIMENTAL APPARATUS TO TEST SPINNING
 SPACECRAFT UNDER THRUST.**
 08/19/1997 - 07/31/1998 FY98: \$0 Total: \$27,000
 Prin. Invest.: T H STENGLE
 Tech. Officer: GSFC/T H STENGLE
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 7378 ORAL ROBERTS UNIVERSITY **8156**
**EXPERIMENTAL APPARATUS TO TEST THE STABILITY OF SPINNING
 SPACECRAFT UNDER THRUST**
 05/06/1998 - 05/14/1999 FY98: \$48,000 Total: \$48,000
 Prin. Invest.: J HALSMER
 Tech. Officer: GSFC/R HARMAN
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1820 UNIVERSITY OF OKLAHOMA - NORMAN **8157**
EFFICIENT STRUCTURAL OPTIMIZATION
 03/13/1996 - 09/12/1997 FY98: \$1 Total: \$7,444
 Prin. Invest.: J G STRIZ
 Tech. Officer: LARC/J M HOUSNER
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2056 UNIVERSITY OF OKLAHOMA - NORMAN **8158**
**DEVELOPMENT OF A WIRELESS TELEMETRY SYSTEM FOR WIND TUNNEL
 APPLICATIONS**
 04/21/1998 - 11/30/1998 FY98: \$69,998 Total: \$69,998
 Prin. Invest.: J R CRUZ
 Tech. Officer: LARC/S K KAHNG
 CASE Category: 46 - MECHANICAL ENGR

NAG 3 1594 UNIVERSITY OF OKLAHOMA - NORMAN **8159**
**EFFECTS OF ENERGY RELEASE ON NEAR FIELD FLOW STRUCTURE OF
 GAS JETS**
 06/02/1994 - 08/01/1998 FY98: \$56,000 Total: \$450,000
 Prin. Invest.: A K AGRAWAL, S R GOLLAHALLI
 Tech. Officer: LERC/H D ROSS
 CASE Category: 46 - MECHANICAL ENGR

NAG 5 3211 UNIVERSITY OF OKLAHOMA - NORMAN **8160**
X-RAYS FROM THE CENTRAL RADIO SOURCE IN NGC 7331
 04/19/1996 - 10/31/1998 FY98: \$0 Total: \$7,523
 Prin. Invest.: W ROMANISHIN
 Tech. Officer: GSFC/R PETRE
 CASE Category: 11 - ASTRONOMY

NAG 5 3503 UNIVERSITY OF OKLAHOMA - NORMAN **8161**
MULTIWAVELENGTH STUDIES OF SUPERNOVAE
 11/25/1996 - 09/30/1999 FY98: \$100,000 Total: \$150,000
 Prin. Invest.: E A BARON
 Tech. Officer: GSFC/D K WEST
 CASE Category: 11 - ASTRONOMY

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| NAG 5 6717 UNIVERSITY OF OKLAHOMA - NORMAN 8162 CENTER OF EXCELLENCE IN APPLICATION OF REMOTE SENSING TO REGIONAL AND GLOBAL INTEGRATED ENVIRONMENT 12/10/1997 - 12/14/1998 FY98: \$338,661 Total: \$338,661 <i>Prin. Invest.:</i> K HUMES <i>Tech. Officer:</i> GSFC/M WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NGT 5 40013 UNIVERSITY OF OKLAHOMA - NORMAN 8170 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM. 01/30/1997 - 02/28/2001 FY98: \$212,500 Total: \$382,500 <i>Prin. Invest.:</i> V DUCA <i>Tech. Officer:</i> GSFC/L KEFFER <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER |
| NAG 8 1271 UNIVERSITY OF OKLAHOMA - NORMAN 8163 MICROGRAVITY IMPREGNATION OF FIBER PREFORMS 05/02/1996 - 05/15/2000 FY98: \$100,000 Total: \$250,000 <i>Prin. Invest.:</i> M C ALTAN, B GRADY, F C LAI <i>Tech. Officer:</i> MSFC/D R WOODARD, MSFC/R W ALLEN <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER | NCC 3 338 UNIVERSITY OF TULSA 8171 RESIDUAL STRESS MEASUREMENTS 7 DEBONDING ANALYSIS OF THERMAL BARRIER COATINGS 02/17/1994 - 11/30/1997 FY98: -\$5 Total: \$81,973 <i>Prin. Invest.:</i> E F RYBICKI, J R SHADLEY <i>Tech. Officer:</i> LERC/W J BRINDUEY, LERC/R A MILLER <i>CASE Category:</i> 47 - METAL & MATERIALS ENGR |
| NAS 3 26957 UNIVERSITY OF OKLAHOMA - NORMAN 8164 ACTS PROPAGATION EXPERIMENTS 05/13/1993 - 04/30/1998 FY98: \$72,148 Total: \$484,455 <i>Prin. Invest.:</i> R K CRANE <i>Tech. Officer:</i> LERC/R J GUNDERMAN <i>CASE Category:</i> 41 - AERONAUTICAL ENGR | OREGON |
| NCC 5 171 UNIVERSITY OF OKLAHOMA - NORMAN 8165 TO SUPPORT RESEARCH UNDER THE EXPERIMENTAL PROGRAM COMPETITIVE RESEARCH 12/16/1996 - 11/14/1998 FY98: \$500,000 Total: \$1,000,000 <i>Prin. Invest.:</i> S DUCA <i>Tech. Officer:</i> GSFC/L KEFFER <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER | NAG 2 1268 OREGON GRADUATE INST OF SCIENCE & TECH 8172 VLSI NEUROTECHNOLOGY: MASSIVELY PARALLEL COMPUTING FOR AUTONOMOUS INTELLIGENCE 09/16/1998 - 08/31/1999 FY98: \$53,276 Total: \$53,276 <i>Prin. Invest.:</i> D HAMMERSTROM <i>Tech. Officer:</i> ARC/W F BROOKS, ARC/C C JORGENSEN <i>CASE Category:</i> 22 - COMPUTER SCIENCE |
| NGT 30308 UNIVERSITY OF OKLAHOMA - NORMAN 8166 GLOBAL CHANGE FELLOWSHIP AWARD 09/12/1995 - 08/31/1998 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> P J MCCANN <i>Tech. Officer:</i> HQ/M LUTHER, HQ/G ASRAR <i>CASE Category:</i> 45 - ELECTRICAL ENGR | NCC 2 811 OREGON GRADUATE INST OF SCIENCE & TECH 8173 PERCEPTION-BASED SENSOR FUSION FOR AN AUGMENTED VISION SYSTEM 07/16/1993 - 08/31/1999 FY98: \$0 Total: \$676,674 <i>Prin. Invest.:</i> M PAVEL <i>Tech. Officer:</i> ARC/A J AHUMADA, ARC/C H NULL <i>CASE Category:</i> 69 - PSYCHOLOGY, OTHER |
| NGT 40052 UNIVERSITY OF OKLAHOMA - NORMAN 8167 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM 09/03/1991 - 02/28/1998 FY98: \$0 Total: \$1,074,863 <i>Prin. Invest.:</i> K L HOVING <i>Tech. Officer:</i> HQ/E T SCHWARTZ <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER | NGT 8 52803 OREGON GRADUATE INST OF SCIENCE & TECH 8174 GRADUATE STUDENT RESEARCHERS PROGRAM 07/28/1995 - 08/01/1998 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> U S RAO GUDIMETLA <i>Tech. Officer:</i> MSFC/R W ROOD <i>CASE Category:</i> 13 - PHYSICS |
| NGT 5 30103 UNIVERSITY OF OKLAHOMA - NORMAN 8168 THIRD YEAR: "NEW TUNABLE DIODE LASERS FOR MOLECULAR SPECTROSCOPY" 09/17/1997 - 08/31/1998 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> P J MCCANN <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER | NAG 2 1199 OREGON HEALTH SCIENCES UNIVERSITY 8175 HOW DO CELL DIVISION PLANCES SPECIFY REGIONAL GENE EXPRESSION PATTERNS IN EARLY EMBRYOS? 04/02/1998 - 09/30/1998 FY98: \$68,473 Total: \$68,473 <i>Prin. Invest.:</i> M V DANILCHIK <i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR) |
| NGT 5 30151 UNIVERSITY OF OKLAHOMA - NORMAN 8169 INVESTIGATION OF LAND-ATMOSPHERE INTERACTIONS USING THE OKLAHOMA MESONET/NASA EARTH SCIENCE 09/01/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> K CRAWFORD <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NCC 2 934 OREGON HEALTH SCIENCES UNIVERSITY 8176 CA2+ METABOLISM & VASCULAR FUNCTION AFTER SPACE FLIGHT 09/21/1995 - 06/30/1998 FY98: \$0 Total: \$555,528 <i>Prin. Invest.:</i> D A MCCARRON, D C HATTON <i>Tech. Officer:</i> ARC/D A REISS-BUBENHEIM, ARC/C M WINGET <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR) |

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| NAG 1 1263 OREGON STATE UNIVERSITY 8177 CHARACTERIZATION OF CLOUDS AND ANISOTROPY OF EMITTED AND REFLECTED RADIANCES AS PART OF CERES 05/07/1991 - 10/31/1998 FY98: \$0 Total: \$738,015 Prin. Invest.: J A COAKLEY Tech. Officer: LARC/J W YOUNGBLOOD, LARC/B A WIELICKI CASE Category: 31 - ATMOSPHERIC SCIENCE | NAG 5 4069 OREGON STATE UNIVERSITY 8185 SAR-BASED STRUCTURAL MAPPING OF THE TRANSANTARCTIC 04/12/1997 - 12/28/1999 FY98: \$49,549 Total: \$96,241 Prin. Invest.: J LEVY Tech. Officer: GSFC/S H GOGINENI CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NAG 2 875 OREGON STATE UNIVERSITY 8178 AN AGENT-BASED COCKPIT TASK MANAGEMENT SYSTEM 12/30/1993 - 10/31/1997 FY98: -\$2,140 Total: \$443,107 Prin. Invest.: K H FUNK II Tech. Officer: ARC/K M CORKER, ARC/F A PALMER III CASE Category: 69 - PSYCHOLOGY, OTHER | NAG 5 4432 OREGON STATE UNIVERSITY 8186 THE TOPOLGY OF OCEAN CIRCULATION 04/17/1997 - 06/30/1998 FY98: \$0 Total: \$53,990 Prin. Invest.: A F BENNET Tech. Officer: GSFC/B C DOUGLAS CASE Category: 33 - OCEANOGRAPHY |
| NAG 2 1123 OREGON STATE UNIVERSITY 8179 ESTABLISHING STANDARDS FOR HPC SYSTEMS SOFTWARE & TOOLS 03/14/1997 - 02/28/1999 FY98: \$0 Total: \$40,000 Prin. Invest.: C M PANCAKE Tech. Officer: ARC/C H SCHULBACH, ARC/W J FEIEREISEN CASE Category: 22 - COMPUTER SCIENCE | NAG 5 4431 OREGON STATE UNIVERSITY 8187 EVALUATING ECOSYSTEM MODEL PREDICTIONS OF CO2 & WA ACROSS THE OREGON TRANSECT WITH FLUX MEASUREMENTS 04/23/1997 - 03/31/1998 FY98: \$0 Total: \$198,086 Prin. Invest.: D H UNSWORTH Tech. Officer: GSFC/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 2 1143 OREGON STATE UNIVERSITY 8180 NETWORK FOR EDUCATION & RESEARCH IN OREGON (NERO) 07/17/1997 - 06/30/1999 FY98: \$0 Total: \$450,000 Prin. Invest.: R D DRYDEN, E T REYNALDES Tech. Officer: ARC/M J LEON CASE Category: 22 - COMPUTER SCIENCE | NAG 5 4542 OREGON STATE UNIVERSITY 8188 40 AR/39 AR INCREMENTAL HEATING AGES OF SUBMILLIGR IMPACT MELT ROCKS USING A CONTINUOUS LASER SYSTEM 05/06/1997 - 05/31/1999 FY98: \$15,389 Total: \$52,893 Prin. Invest.: D DALRYMPLE Tech. Officer: GSFC/D NAVA CASE Category: 11 - ASTRONOMY |
| NAG 5 2300 OREGON STATE UNIVERSITY 8181 FLUXES OVER INHOMOGENEOUS SURFACES IN BOREAS 06/30/1993 - 07/14/1998 FY98: \$0 Total: \$280,000 Prin. Invest.: L MAHRT Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 4416 OREGON STATE UNIVERSITY 8189 TITLE: LOCAL VALIDATION OF GLOBAL ESTIMATE OF BIO SYNTHESIS AND SCALING METHODS ACROSS SEVERAL MAJO 06/26/1997 - 09/30/1998 FY98: \$41,914 Total: \$160,202 Prin. Invest.: D COHEN Tech. Officer: GSFC/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 2301 OREGON STATE UNIVERSITY 8182 FROM MICROSCALE TO MESOSCALE: SNOWMELT, SOIL MOISTURE, AND EVAPOTRANSPIRATION FROM DISTRIBUTED... 06/30/1993 - 10/14/1998 FY98: \$0 Total: \$198,735 Prin. Invest.: D MARKS Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 4347 OREGON STATE UNIVERSITY 8190 "COUPLED ATMOSPHERE/OCEAN PROCESSES & PRIMARY PROD IN THE SOUTHERN OCEAN" 06/23/1997 - 06/30/1999 FY98: \$825,000 Total: \$1,650,000 Prin. Invest.: M R ABBOTT Tech. Officer: GSFC/J A YODER CASE Category: 33 - OCEANOGRAPHY |
| NAG 5 2377 OREGON STATE UNIVERSITY 8183 COUPLED ATMOSPHERIC-FOREST CANOPY-SOIL PROFILE MONITORING AND SIMULATION 09/30/1993 - 09/30/1998 FY98: \$51,700 Total: \$370,049 Prin. Invest.: R H CUENCA Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 1960 OREGON STATE UNIVERSITY 8191 A HIGH-RESOLUTION SURVEY OF THE DISK OF M31 06/27/1997 - 06/30/1998 FY98: \$0 Total: \$1,425 Prin. Invest.: F A PRIMINI Tech. Officer: GSFC/R PETRE CASE Category: 11 - ASTRONOMY |
| NAG 5 3963 OREGON STATE UNIVERSITY 8184 SUMMER SCHOOL IN DATA ASSIMILATION AND INVERSE MET 02/18/1997 - 01/31/1998 FY98: \$0 Total: \$34,000 Prin. Invest.: D F BENNET Tech. Officer: GSFC/B DOUGLAS CASE Category: 33 - OCEANOGRAPHY | NAG 5 6156 OREGON STATE UNIVERSITY 8192 EFFECT OF OCEAN TIDES ON THE LONG TERM ORBITAL AND OF THE EARTH-MOON SYSTEM 09/11/1997 - 09/14/1999 FY98: \$20,000 Total: \$40,000 Prin. Invest.: G D EGBERT Tech. Officer: GSFC/B BILLS CASE Category: 19 - PHYSICAL SCIENCE, OTHER |

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| NAG 5 6189 OREGON STATE UNIVERSITY 8193 WAVES AND INSTABILITY IN THE ATMOSPHERE OF MARS 02/04/1998 - 06/30/1999 FY98: \$107,806 Total: \$107,806 <i>Prin. Invest.:</i> D BARNES <i>Tech. Officer:</i> GSFC/J BERGSTRALH CASE Category: 31 - ATMOSPHERIC SCIENCE | NAG 5 6647 OREGON STATE UNIVERSITY 8201 RELATIONSHIPS BETWEEN THE INHERENT OPTICAL PROPERTIES (IOP), BIOGEOCHEMICAL PARAMETERS A 12/04/1997 - 11/30/1998 FY98: \$89,976 Total: \$89,976 <i>Prin. Invest.:</i> J R ZANEVELD <i>Tech. Officer:</i> GSFC/J CAMPBELL CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 6242 OREGON STATE UNIVERSITY 8194 MODELING CARBON DYNAMICS AND THEIR ECONOMIC IMPLICATIONS: PACIFIC NORTHWESTERN USA AND NORTHWESTERN 08/19/1997 - 02/28/2000 FY98: \$216,250 Total: \$511,250 <i>Prin. Invest.:</i> D E HARMON <i>Tech. Officer:</i> GSFC/A C JANETOS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7416 OREGON STATE UNIVERSITY 8202 SPATIALLY-AVERAGED FLUXES OF CO₂, HEAT AND MOISTURE 05/21/1998 - 04/30/2000 FY98: \$83,562 Total: \$63,562 <i>Prin. Invest.:</i> L MAHRT <i>Tech. Officer:</i> GSFC/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 6290 OREGON STATE UNIVERSITY 8195 COLLABORATIVE RESEARCH: SCALING THEORIES OF 3-D GEOPHYSICAL NETWORKS 08/29/1997 - 05/31/1998 FY98: \$0 Total: \$32,804 <i>Prin. Invest.:</i> E WAYMIRE <i>Tech. Officer:</i> GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7506 OREGON STATE UNIVERSITY 8203 ASSESSING POTENTIAL AND ACTUAL FOREST PRODUCTIVITY ACROSS SOUTHWESTERN OREGON WITH TWO SIMULATIONS 06/26/1998 - 06/30/2001 FY98: \$88,699 Total: \$88,699 <i>Prin. Invest.:</i> R H WARING <i>Tech. Officer:</i> GSFC/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 6354 OREGON STATE UNIVERSITY 8196 OBSERVATIONS AND MODELING OF THE TRANSIENT GENERAL CIRCULATION 09/26/1997 - 08/31/1999 FY98: \$119,483 Total: \$238,473 <i>Prin. Invest.:</i> D B CHELTON <i>Tech. Officer:</i> GSFC/E LINDSTROM CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7531 OREGON STATE UNIVERSITY 8204 EVALUATING MODEL PREDICTIONS OF CO₂ AND WATER VAPOR EXCHANGE WITH FLUX MEASUREMENTS IN A POND 06/11/1998 - 06/30/2001 FY98: \$162,881 Total: \$162,881 <i>Prin. Invest.:</i> M H UNSWORTH <i>Tech. Officer:</i> GSFC/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 6373 OREGON STATE UNIVERSITY 8197 GRAVITROPIC SIGNAL TRANSDUCTION IN THE LAZY-2 TOMATO MUTANT 10/03/1997 - 06/30/1999 FY98: \$196,085 Total: \$196,085 <i>Prin. Invest.:</i> D LOMAX <i>Tech. Officer:</i> GSFC/T SCOTT CASE Category: 59 - LIFE SCIENCE, OTHER | NAG 5 7551 OREGON STATE UNIVERSITY 8205 REDUCING UNCERTAINTY IN CARBON AND ENERGY EXCHANGE OVER PINE FORESTS: INFLUENCE OF AGE, MANAGEMENT 06/22/1998 - 06/30/2001 FY98: \$362,002 Total: \$362,002 <i>Prin. Invest.:</i> B LAW <i>Tech. Officer:</i> GSFC/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 6477 OREGON STATE UNIVERSITY 8198 EARTH SCIENCE DATA VISUALIZATION & SATELLITE DATA ACQUISITION LABORATORY 11/18/1997 - 09/30/1998 FY98: \$500,000 Total: \$500,000 <i>Prin. Invest.:</i> D PISIAS <i>Tech. Officer:</i> GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7686 OREGON STATE UNIVERSITY 8206 LIMITS TO CLOUD SUSCEPTIBILITY 09/15/1998 - 09/30/1999 FY98: \$98,000 Total: \$98,000 <i>Prin. Invest.:</i> J A COAKLEY, JR. <i>Tech. Officer:</i> GSFC/M I MISHCHENKO CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NAG 5 6530 OREGON STATE UNIVERSITY 8199 THE IMPROVED ALGORITHM FOR ESTIMATING THE ATMOSPHERIC EFFECT IN SPACE MEASUREMENTS OF THE MARINE 12/09/1997 - 10/31/1998 FY98: \$127,960 Total: \$127,960 <i>Prin. Invest.:</i> K SHIFRIN <i>Tech. Officer:</i> GSFC/J CAMPBELL CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7694 OREGON STATE UNIVERSITY 8207 EXPERIMENTAL & THEORETICAL STUDIES OF ORGANIC SYNTHESIS AND ALTERATION AT HYDROTHERMAL CONDITIONS 09/23/1998 - 05/31/1999 FY98: \$33,333 Total: \$33,333 <i>Prin. Invest.:</i> B T SIMONEIT <i>Tech. Officer:</i> GSFC/M MEYER CASE Category: 11 - ASTRONOMY |
| NAG 5 6642 OREGON STATE UNIVERSITY 8200 COMPREHENSIVE VALIDATION OF SATELLITE OCEAN WINDS: ADVANCED TECHNIQUES AND MULTI-INSTRUMENT ANALYSIS 11/20/1997 - 10/31/2000 FY98: \$390,985 Total: \$390,985 <i>Prin. Invest.:</i> D FREILICH <i>Tech. Officer:</i> GSFC/J C DODGE CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAGW 2445 OREGON STATE UNIVERSITY 8208 RESEARCH OF THE ATMOSPHERE OF MARS 04/02/1991 - 06/30/1997 FY98: \$0 Total: \$469,827 <i>Prin. Invest.:</i> J R BARNES <i>Tech. Officer:</i> HQW QUAIDE CASE Category: 11 - ASTRONOMY |

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| NAGW 2475 OREGON STATE UNIVERSITY 8209 SATELLITE ESTIMATED BIOLOGICAL PHYSICAL COUPLING IN EASTERN BOUNDARY CURRENTS 09/01/1991 - 12/31/1997 FY98: \$0 Total: \$624,714 <i>Prin. Invest.:</i> P T STRUB <i>Tech. Officer:</i> HQ/D ADAMEC, HQ/R A SCHIFFER <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAGW 4880 OREGON STATE UNIVERSITY 8217 LOCAL VALIDATION OF GLOBAL ESTIMATE OF BIOSPHERE P ROP: A SYS- THEMATIC OF SCALING METHODS & RESULTS ACR 03/01/1996 - 03/31/1997 FY98: -\$43,859 Total: \$456,141 <i>Prin. Invest.:</i> W B COHEN, S W RUNNING <i>Tech. Officer:</i> HQ/D E WICKLAND, HQ/A C JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER |
| NAGW 3745 OREGON STATE UNIVERSITY 8210 ANALYSIS OF LAND-USE EFFECTS ON LANDSCAPE PATTERNS AND BIOLOGICAL DIVERSITY IN PACIFIC NW FORESTS 09/17/1993 - 06/15/1998 FY98: \$0 Total: \$326,283 <i>Prin. Invest.:</i> D O WALLIN, W B COHEN, G A BRADSHAW <i>Tech. Officer:</i> HQ/D E WICKLAND, HQ/A C JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAGW 4971 OREGON STATE UNIVERSITY 8218 ANALYSIS OF RADARSAT'S C-BAND SYNTHETIC APERTURE RADAR (SAR) DATA FOR IDENTIFICATION OF PBL ROLL SI 02/24/1996 - 09/30/1997 FY98: \$0 Total: \$49,753 <i>Prin. Invest.:</i> G LEVY <i>Tech. Officer:</i> HQ/R H THOMAS, HQ/R C HARRISS <i>CASE Category:</i> 33 - OCEANOGRAPHY |
| NAGW 3870 OREGON STATE UNIVERSITY 8211 NAGW-3870/B OREGON STATE UNIV. "REL. BETWEEN CHLOROPHYLL, SPECTRAL VEGETATION INDICES..." 36-MO 03/18/1994 - 09/30/1997 FY98: \$0 Total: \$285,579 <i>Prin. Invest.:</i> B J YODER, W E WINDER <i>Tech. Officer:</i> HQ/D E WICKLAND, HQ/A C JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAGW 5061 OREGON STATE UNIVERSITY 8219 OBSERVATIONS AND MODELING OF THE TRANSIENT GENERAL CIRCULA- TION OF THE PACIFIC OCEAN 04/09/1996 - 09/30/1997 FY98: \$0 Total: \$118,865 <i>Prin. Invest.:</i> D CHELTON <i>Tech. Officer:</i> HQ/B C DOUGLAS, HQ/R C HARRISS <i>CASE Category:</i> 33 - OCEANOGRAPHY |
| NAGW 4172 OREGON STATE UNIVERSITY 8212 EXPERIMENTAL AND THEORETICAL STUDIES OF ORGANIC SYNTHESIS AND ALTERATION AT HYDROTHERMAL CONDITIONS 10/20/1994 - 09/30/1997 FY98: \$0 Total: \$399,998 <i>Prin. Invest.:</i> B SIMONEIT <i>Tech. Officer:</i> HQ/M MEYER <i>CASE Category:</i> 11 - ASTRONOMY | NAGW 5220 OREGON STATE UNIVERSITY 8220 40AR/39AR INCREMENTAL HEATING AGES OF SUBMILLIGRAM SAMPLES OF LUNAR IMPACT MELT ROCKS USING CONTIN. 11/18/1996 - 09/01/1997 FY98: \$0 Total: \$40,000 <i>Prin. Invest.:</i> G DALRYMPLE <i>Tech. Officer:</i> HQ/J NUTH, HQ/H C BRINTON <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER |
| NAGW 4436 OREGON STATE UNIVERSITY 8213 EVALUATING ECOSYSTEM MODEL PREDICTIONS 05/10/1995 - 09/30/1997 FY98: \$0 Total: \$479,366 <i>Prin. Invest.:</i> M H UNSWORTH, T L CRAWFORD <i>Tech. Officer:</i> HQ/D E WICKLAND, HQ/A C JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAS 119152 OREGON STATE UNIVERSITY 8221 SCIENCE SUPPORT TO THE LITE SCIENCE TEAM 05/14/1993 - 11/30/1999 FY98: \$0 Total: \$223,000 <i>Prin. Invest.:</i> J A COAKLEY <i>Tech. Officer:</i> LARC/G L MADDREA <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NAGW 4596 OREGON STATE UNIVERSITY 8214 COUPLED ATMOSPHERE OCEAN PROCESSES 07/20/1995 - 09/30/1997 FY98: \$0 Total: \$1,956,623 <i>Prin. Invest.:</i> M R ABBOTT <i>Tech. Officer:</i> HQ/M BALTUCK, HQ/D M BUTLER <i>CASE Category:</i> 33 - OCEANOGRAPHY | NAS 531360 OREGON STATE UNIVERSITY 8222 MODIS INVESTIGATION 12/30/1991 - 12/14/2001 FY98: \$555,000 Total: \$2,951,000 <i>Prin. Invest.:</i> M R ABBOTT <i>Tech. Officer:</i> GSFC/H OSEROFF <i>CASE Category:</i> 33 - OCEANOGRAPHY |
| NAGW 4680 OREGON STATE UNIVERSITY 8215 THE TOPOLOGY OF OCEAN CIRCULATION 08/03/1995 - 09/30/1997 FY98: \$0 Total: \$105,360 <i>Prin. Invest.:</i> A F BENNETT <i>Tech. Officer:</i> HQ/M BALTUCK, HQ/N MAYNARD <i>CASE Category:</i> 33 - OCEANOGRAPHY | NAS 532965 OREGON STATE UNIVERSITY 8223 SEAWINDS PRINCIPAL INVESTIGATOR & SCIENCE TEAM ACTIVITIES 09/15/1995 - 12/31/2004 FY98: \$559,150 Total: \$2,580,150 <i>Prin. Invest.:</i> D H FREILICH <i>Tech. Officer:</i> GSFC/C RABER <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NAGW 4714 OREGON STATE UNIVERSITY 8216 COLLABORATIVE RESEARCH SCALING THEORIES OF 3-D CEO METRY AND FLOWS 08/18/1995 - 05/31/1997 FY98: \$0 Total: \$60,425 <i>Prin. Invest.:</i> E C WAYMIRE <i>Tech. Officer:</i> HQ/M Y WEI, HQ/A C JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAS 537129 OREGON STATE UNIVERSITY 8224 SIMBKIS DATA PRODUCT & ALGORITHM VALIDATION 08/18/1997 - 08/17/1999 FY98: \$125,010 Total: \$489,492 <i>Prin. Invest.:</i> J R ZANEVELD <i>Tech. Officer:</i> GSFC/C MCCLAIN <i>CASE Category:</i> 33 - OCEANOGRAPHY |

NCC 2 661 OREGON STATE UNIVERSITY **8225**
NUMERICAL SIMULATIONS OF THE MARTIAN ATMOSPHERE"
 03/15/1990 – 12/31/1998 FY98: \$16,399 Total: \$125,347
Prin. Invest.: J R BARNES
Tech. Officer: ARC/R M HABERLE, ARC/J B POLLACK
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 2 52245 OREGON STATE UNIVERSITY **8233**
MESOSCALE MODEL OF THE MARTIAN ATMOSPHERE
 08/11/1998 – 08/14/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J R BARNES
Tech. Officer: ARC/R M HABERLE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 2 5222 OREGON STATE UNIVERSITY **8226**
**USE OF MAPLE SEEDING CONOPY REFLECTANCE DATASET FOR VALIDA-
 TION OF SART/LEAFMOD RADIATIVE TRANSFER**
 06/20/1997 – 07/31/1999 FY98: \$5,000 Total: \$10,000
Prin. Invest.: B YODER
Tech. Officer: ARC/D PETERSON
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NGT 5 30064 OREGON STATE UNIVERSITY **8234**
PHYSICAL-BIOLOGICAL INTERACTIONS IN THE SOUTHERN O
 09/10/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: M ABBOTT
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC13 98004 OREGON STATE UNIVERSITY **8227**
AFFILIATED RESEARCH CENTER PROGRAM SAME
 08/04/1998 – 09/30/2001 FY98: \$50,000 Total: \$50,000
Prin. Invest.: D KIMERLING
Tech. Officer: SSC/H CARR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 40022 OREGON STATE UNIVERSITY **8235**
**TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
 AND FELLOWSHIP PROGRAM.**
 02/13/1997 – 02/28/1999 FY98: \$268,250 Total: \$438,250
Prin. Invest.: A C KLEIN
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 30249 OREGON STATE UNIVERSITY **8228**
GLOBAL CHANGE FELLOWSHIP AWARD
 10/06/1994 – 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J B KAUFMAN
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 5 50080 OREGON STATE UNIVERSITY **8236**
**EFFECTS OF RESISTANCE AND HIGH-IMPACT TRAINING ON STEM IN PRE-
 MENOPAUSAL WOMEN**
 09/05/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: C SNOW
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 30263 OREGON STATE UNIVERSITY **8229**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/22/1994 – 08/31/1997 FY98: -\$17,601 Total: \$26,399
Prin. Invest.: M FREILICH
Tech. Officer: HQ/R A SCHIFFER, HQ/G ASRAR
CASE Category: 33 – OCEANOGRAPHY

NGT 5 50092 OREGON STATE UNIVERSITY **8237**
TYPE SIMILARITIES FOR ENABLING CODE REUSE IN VISUA
 09/05/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: BURNETT
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 40033 OREGON STATE UNIVERSITY **8230**
NATL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 04/03/1991 – 09/30/1997 FY98: -\$27,046 Total: \$1,010,487
Prin. Invest.: D R CALDWELL
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1283 PORTLAND STATE UNIVERSITY **8238**
JOVE RESEARCH
 01/21/1997 – 08/31/1999 FY98: \$11,000 Total: \$54,914
Prin. Invest.: A M FRASER
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 51692 OREGON STATE UNIVERSITY **8231**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/15/1996 – 08/31/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: D SNOW
Tech. Officer: HQ/GLESANE
CASE Category: 45 – ELECTRICAL ENGR

NAG 1 1650 UNIVERSITY OF OREGON – EUGENE **8239**
**ATMOSPHERIC AND SPECTROSCOPIC RESEARCH IN THE FAR INFRARED
 NLPN 94-830**
 11/14/1994 – 05/21/1998 FY98: \$0 Total: \$155,001
Prin. Invest.: K JAI-PARK
Tech. Officer: LARC/I G NOLT, LARC/T C STEELE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 2 52221 OREGON STATE UNIVERSITY **8232**
**BIOMASS & CARBON DYNAMICS ASSOCIATED WITH LAND USE IN THE
 BRAZILIAN AMAZON: SCALING OF GROUND-....**
 09/20/1996 – 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: J B KAUFFMAN
Tech. Officer: ARC/E P CONDON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 2010 UNIVERSITY OF OREGON – EUGENE **8240**
ATMOSPHERIC AND SPECTROSCOPIC RESEARCH IN THE FAR INFRARED
 02/23/1998 – 02/21/1999 FY98: \$60,000 Total: \$60,000
Prin. Invest.: K PARK
Tech. Officer: LARC/I G NOLT
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 2 1173 UNIVERSITY OF OREGON - EUGENE **8241**
STUDIES OF BACTERIORHODOPSIN FOR OPTICAL DATA STORAGE
 01/26/1998 - 11/30/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: G W RAYFIELD
Tech. Officer: ARC/J D DOWNIE
CASE Category: 13 - PHYSICS

NAG 3 1934 UNIVERSITY OF OREGON - EUGENE **8242**
NUCLEATION OF QUANTIZED VORTICES FROM ROTATING SUPERFLUID DROPS
 08/05/1996 - 06/30/2000 FY98: \$34,000 Total: \$117,000
Prin. Invest.: D J DONNELLY
Tech. Officer: LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 5 1903 UNIVERSITY OF OREGON - EUGENE **8243**
KINEMATIC AND DYNAMIC MODELING OF WESTERN NORTH AMERICAN TECTONIC ACTIVITY
 02/20/1992 - 12/31/1997 FY98: \$0 Total: \$401,000
Prin. Invest.: E D HUMPHREYS
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3282 UNIVERSITY OF OREGON - EUGENE **8244**
QUASI-PERIODIC OSCILLATIONS AND THE TEMPORAL CHARACTERISTICS OF THE AMHERCULIS OBJECTS
 07/01/1996 - 01/31/1998 FY98: \$0 Total: \$25,700
Prin. Invest.: J IMAMURA
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 6109 UNIVERSITY OF OREGON - EUGENE **8245**
THE FORMATION AND EVOLUTION OF LSB GALAXIES
 07/24/1997 - 06/30/1998 FY98: \$0 Total: \$89,766
Prin. Invest.: D SCHOMBERT
Tech. Officer: GSFC/H SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 6962 UNIVERSITY OF OREGON - EUGENE **8246**
FUNNELED ACCRETION FLOWS IN MAGNETIC CATAclysmic VARIABLES
 02/06/1998 - 01/31/1999 FY98: \$22,303 Total: \$22,303
Prin. Invest.: J N IMAMURA
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 8 1047 UNIVERSITY OF OREGON - EUGENE **8247**
THE NEAR-UV PROPERTIES OF GALAXIES WHICH HAVE LOW OPTICAL SURFACE BRIGHTNESS
 03/16/1994 - 12/31/1997 FY98: \$0 Total: \$116,859
Prin. Invest.: G D BOTHUN, E P SMITH
Tech. Officer: MSFC/J OWENS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 50105 UNIVERSITY OF OREGON - EUGENE **8248**
A REALISTIC MODEL OF CO AND POST-SEISMIC DEFORMATION RIDGE EARTHQUAKE AND ITS PREDECESSORS
 09/06/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: E HUMPHREYS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NGT 5 50107 UNIVERSITY OF OREGON - EUGENE **8249**
POTENTIAL VEGETATION CHANGE IN NORTH AMERICA IN RELATION TO WARMING
 09/06/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: P BARTLEIN
Tech. Officer: GSFC/P BARTLEIN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

PENNSYLVANIA

NAG 5 3617 ALLEGHENY COLLEGE **8250**
ASSESSING THE IMPACTS OF EL NINO CLIMATIC EVENTS ON PHILIPPINE ECONOMY
 02/21/1997 - 12/14/1998 FY98: \$40,075 Total: \$95,066
Prin. Invest.: D BENDEL
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5564 ALLEGHENY COLLEGE **8251**
A WORKSHOP SERIES ON PROMOTING A SUSTAINABLE FOREST INDUSTRY IN NORTHWEST PENNSYLVANIA
 11/03/1997 - 08/31/1999 FY98: \$49,960 Total: \$49,960
Prin. Invest.: T G BENDEL
Tech. Officer: HQ/J DASCH
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4000 BLOOMSBURG UNIVERSITY **8252**
A STUDY OF THE VENUSIAN SURFACE UTILIZING A SELF-AUTONOMOUS ROVER
 03/17/1997 - 12/31/1998 FY98: \$26,109 Total: \$51,609
Prin. Invest.: D K SHEPARD
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 5669 BUCKNELL UNIVERSITY **8253**
PLANETARY MINIATURE LIDAR FOR WATER VAPOUR AEROSOL PROFILES FROM MARS
 01/15/1997 - 12/31/1997 FY98: \$0 Total: \$20,843
Prin. Invest.: S M LORD
Tech. Officer: GSFC/J RALL
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1566 CARNEGIE - MELLON UNIVERSITY **8254**
PSEUDO-TIME ONE-SHOT METHODS FOR CONSTRAINED OPTIMIZATION PROBLEMS
 01/13/1995 - 01/12/1999 FY98: \$14,918 Total: \$209,479
Prin. Invest.: S TA'ASAN
Tech. Officer: LARC/M D SALAS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1587 CARNEGIE - MELLON UNIVERSITY **8255**
CANONICAL VARIABLES MULTIGRID METHOD FOR COMPRESSIBLE NAVIER-STOKES EQUATIONS
 01/20/1995 - 09/30/1998 FY98: \$0 Total: \$140,375
Prin. Invest.: S TA'ASAN
Tech. Officer: LARC/W K ANDERSON
CASE Category: 41 - AERONAUTICAL ENGR

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| NAG 1 2090 CARNEGIE - MELLON UNIVERSITY 8256 NOVEL SCALABLE ALGORITHMS FOR AEROSPACE DESIGN OPTIMIZATION ON MASSIVELY PARALLEL COMPUTERS 07/21/1998 - 08/31/1999 FY98: \$20,000 Total: \$20,000 Prin. Invest.: O GHATTAS Tech. Officer: LARC/R T BIEDRON, GSFC/J SOBIESKI CASE Category: 41 - AERONAUTICAL ENGR | NAG 3 2159 CARNEGIE - MELLON UNIVERSITY 8264 LATEAL MOTION OF PARTICLES AND BUBBLES CAUSED BY PHORETIC FLOWS NEAR A SOLID INTERFACE 04/22/1998 - 12/31/2002 FY98: \$80,000 Total: \$80,000 Prin. Invest.: P J SIDES, Y E SOLOMENTSER, J L ANDERSON Tech. Officer: LERC/R B ROGERS CASE Category: 13 - PHYSICS |
| NAG 2 1048 CARNEGIE - MELLON UNIVERSITY 8257 HAPTIC PERCEPTION 07/30/1996 - 03/31/1998 FY98: \$0 Total: \$150,000 Prin. Invest.: M HEBERT Tech. Officer: ARC/M H SIMS, ARC/S LAU CASE Category: 46 - MECHANICAL ENGR | NAG 5 3651 CARNEGIE - MELLON UNIVERSITY 8265 MISSION SCIENTIST FOR ESA'S X-RAY MULTI-MIRROR MIS 03/06/1997 - 02/28/1999 FY98: \$130,000 Total: \$260,000 Prin. Invest.: D GRIFFITHS Tech. Officer: GSFC/D MACHI CASE Category: 11 - ASTRONOMY |
| NAG 2 1137 CARNEGIE - MELLON UNIVERSITY 8258 POSITION ESTIMATION FROM NATURAL LANDMARKS 07/11/1997 - 10/31/1998 FY98: \$0 Total: \$99,888 Prin. Invest.: M HERBERT Tech. Officer: ARC/M H SIMS CASE Category: 22 - COMPUTER SCIENCE | NAG 5 4635 CARNEGIE - MELLON UNIVERSITY 8266 LAST YEAR OF FUNDING FOR USERC TO DEVELOP & DEMONS TECHNOL-OGIES ASSOCIATED WITH DEPLOYMENT OF ROBOT 06/04/1997 - 06/30/1998 FY98: \$0 Total: \$529,969 Prin. Invest.: E KROTKOV Tech. Officer: GSFC/R AVANT CASE Category: 49 - ENGINEERING, OTHER |
| NAG 2 1230 CARNEGIE - MELLON UNIVERSITY 8259 APPLICATION SPECIFIC SUPER COMPUTING 06/16/1998 - 11/30/1998 FY98: \$299,288 Total: \$299,288 Prin. Invest.: O GHATTAS, T C MOWRY, S C GOLDSTEIN Tech. Officer: ARC/C H SCHULBACH CASE Category: 29 - MATH/COMPUTER SCI, OTHER | NAG 5 4748 CARNEGIE - MELLON UNIVERSITY 8267 UNIVERSITY TO DEVELOP AND DEMONSTRATE NOVEL NEW TE WITH DEPLOYMENT OF ROBOT ROVERS TOTHE LUNAR SURF 07/21/1997 - 12/31/1998 FY98: \$0 Total: \$1,298,322 Prin. Invest.: T EAGAN Tech. Officer: GSFC/R AVANT CASE Category: 49 - ENGINEERING, OTHER |
| NAG 2 1233 CARNEGIE - MELLON UNIVERSITY 8260 PRECISION POSITIONING FROM VISUAL TRACKING OF NATU RAL FEAT-URES 07/01/1998 - 10/31/1998 FY98: \$40,000 Total: \$40,000 Prin. Invest.: M HEBERT Tech. Officer: ARC/J A SCHREINER CASE Category: 22 - COMPUTER SCIENCE | NAG 5 6075 CARNEGIE - MELLON UNIVERSITY 8268 CLUES TO THE ORIGIN OF THE HARD XRB: DEEP SURVEYS 07/28/1997 - 06/30/1998 FY98: \$0 Total: \$31,800 Prin. Invest.: R E GRIFFITHS Tech. Officer: GSFC/N WHITE CASE Category: 11 - ASTRONOMY |
| NAG 2 1266 CARNEGIE - MELLON UNIVERSITY 8261 INTELLIGENT ROBOTICS: AUTONOMOUS NAVIGATION, HEAL TH MAINTENANCE 09/16/1998 - 01/31/1999 FY98: \$186,000 Total: \$186,000 Prin. Invest.: R S SIMMONS Tech. Officer: ARC/M H SIMS, ARC/S LAU CASE Category: 22 - COMPUTER SCIENCE | NAG 5 6548 CARNEGIE - MELLON UNIVERSITY 8269 A NEW LOOK AT CLUSTER EVOLUTION (LTSA) 10/29/1997 - 10/31/1998 FY98: \$54,700 Total: \$54,700 Prin. Invest.: R NICHOL Tech. Officer: GSFC/D WEST CASE Category: 11 - ASTRONOMY |
| NAG 3 1875 CARNEGIE - MELLON UNIVERSITY 8262 FLUID PHYSICS IN STOCHASTIC ACCELERATION ENVIRONME NT DIFFU-SION AND NON-SOINOIDAL FLOWS 05/21/1996 - 05/20/1998 FY98: \$40,000 Total: \$205,000 Prin. Invest.: R F SEKERKA Tech. Officer: LERC/A CHAIT CASE Category: 47 - METAL & MATERIALS ENGR | NAG 5 7707 CARNEGIE - MELLON UNIVERSITY 8270 ANTARCTIC METEORITE SEARCH DEMONSTRATION 09/17/1998 - 09/30/1998 FY98: \$1,000,000 Total: \$1,000,000 Prin. Invest.: W WHITTAKER Tech. Officer: GSFC/D LAVERY CASE Category: 11 - ASTRONOMY |
| NAG 3 1994 CARNEGIE - MELLON UNIVERSITY 8263 CONTROL OF SHOCK-WAVE/BOUNDARY-LAYER INTERACTIONS WITH BLEED 12/13/1996 - 09/30/1998 FY98: \$54,937 Total: \$154,521 Prin. Invest.: T I-P SHIH Tech. Officer: LERC/B P WILLIS, LERC/D O DAVIS CASE Category: 41 - AERONAUTICAL ENGR | NAG 5 7722 CARNEGIE - MELLON UNIVERSITY 8271 ANTARCTIC METEORITE SEARCH TECHNOLOGY 09/21/1998 - 09/30/1998 FY98: \$670,000 Total: \$670,000 Prin. Invest.: W WHITTAKER Tech. Officer: GSFC/D LAVERY CASE Category: 11 - ASTRONOMY |

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| NAS 3 27735 CARNEGIE – MELLON UNIVERSITY 8272 COORDINATED APPROACH TO DEVELOPMENT & VALIDATION OF AERO-ELASTIC CODES 05/30/1996 – 08/31/2000 FY98: \$152,000 Total: \$345,130 Prin. Invest.: J H GRIFFIN Tech. Officer: LERC/R DEL ROSARIO, LERC/G L STEFKO CASE Category: 46 – MECHANICAL ENGR | NGT 3 52326 CARNEGIE – MELLON UNIVERSITY 8280 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT RESEARCHERS PROGRAM 06/13/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: P N RUMTA Tech. Officer: LERC/F MONTEGANI CASE Category: 49 – ENGINEERING, OTHER |
| NCC 2 976 CARNEGIE – MELLON UNIVERSITY 8273 CONSTRAINT POSTING ALGORITHMS FOR SCHEDULING UNDER COMPLEX CONSTRAINTS 12/19/1996 – 09/30/1998 FY98: \$0 Total: \$49,992 Prin. Invest.: S F SMITH, NONE Tech. Officer: ARC/S LAU CASE Category: 22 – COMPUTER SCIENCE | NGT 5 50054 CARNEGIE – MELLON UNIVERSITY 8281 INVESTIGATING THE MECH. OF AGGREGATION OF COLLOIDAL CRYSTAL DEPOSITION 08/05/1997 – 06/30/1998 FY98: \$0 Total: \$22,000 Prin. Invest.: J ANDERSON Tech. Officer: GSFC/A NURRIDIN CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NCC 2 1026 CARNEGIE – MELLON UNIVERSITY 8274 AUTONOMOUS SCIENCE SOFTWARE 03/06/1998 – 01/31/1999 FY98: \$160,000 Total: \$160,000 Prin. Invest.: C GLYMOUR Tech. Officer: ARC/T L ROUGH CASE Category: 22 – COMPUTER SCIENCE | NGT 5 53060 CARNEGIE – MELLON UNIVERSITY 8282 REINFORCEMENT LEARNING FOR SPACECRAFT CONFIGURATION 08/11/1997 – 06/30/1998 FY98: \$0 Total: \$22,000 Prin. Invest.: A W MOORE/BOYAN Tech. Officer: GSFC/A NURRIDIN CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NCC 2 5266 CARNEGIE – MELLON UNIVERSITY 8275 CLASSIFICATION OF SPECTROSCOPIC DATA FOR METEORITE DETECTION 05/20/1998 – 09/14/1999 FY98: \$11,825 Total: \$11,825 Prin. Invest.: M HERBERT Tech. Officer: ARC/T L ROUGH CASE Category: 22 – COMPUTER SCIENCE | NGT 5 55076 CARNEGIE – MELLON UNIVERSITY 8283 MULTIAGENT LEARNING FOR AUTONOMOUS SPACECRAFT CONTROL 08/26/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: M VELOSO Tech. Officer: HQ/A NURRIDIN CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NCC 3 465 CARNEGIE – MELLON UNIVERSITY 8276 MICROSCALE HYDRODYNAMICS NEAR MOVING CONTRACT LINES 04/18/1996 – 04/17/2000 FY98: \$91,000 Total: \$341,000 Prin. Invest.: S GAROFF, M WEISLOGEL Tech. Officer: LERC/R SKARDA CASE Category: 13 – PHYSICS | NGT 5 90330 CARNEGIE – MELLON UNIVERSITY 8284 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR) STUDENT CARL MORALES 01/29/1997 – 08/14/1997 FY98: \$0 Total: \$12,000 Prin. Invest.: E GROTZINGER Tech. Officer: GSFC/R LAWRENCE CASE Category: 49 – ENGINEERING, OTHER |
| NCC 5 223 CARNEGIE – MELLON UNIVERSITY 8277 NATIONAL ROBOTICS ENGINEERING CONSORTIUM 08/26/1997 – 07/31/1998 FY98: \$650,000 Total: \$2,695,000 Prin. Invest.: T KANADE Tech. Officer: GSFC/D LAVERY CASE Category: 11 – ASTRONOMY | NAG 8 1312 CLARION UNIVERSITY OF PENNSYLVANIA 8285 JOVE RESEARCH 01/22/1997 – 08/31/1999 FY98: \$14,000 Total: \$86,000 Prin. Invest.: A J VEGA, P T RYBERG Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NCC 7 7 CARNEGIE – MELLON UNIVERSITY 8278 FRACTAL BRANCHING ULTRA-DEXTEROUS ROBOTS 11/13/1996 – 11/13/1998 FY98: \$0 Total: \$223,904 Prin. Invest.: H MORAVEC Tech. Officer: JPL/N MARSWELL CASE Category: 46 – MECHANICAL ENGR | NAG 1 1770 DREXEL UNIVERSITY 8286 A STUDY OF DMS AND SO2 ON PEM-TROPICS MY 1/2 09/29/1995 – 12/01/1998 FY98: \$0 Total: \$832,716 Prin. Invest.: D R BANDY Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA CASE Category: 31 – ATMOSPHERIC SCIENCE |
| NGT 2 52232 CARNEGIE – MELLON UNIVERSITY 8279 LANDMARK BASED NAVIGATION FOR A PLANETARY ROVER 08/26/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: M HEBERT Tech. Officer: ARC/M H SIMS CASE Category: 46 – MECHANICAL ENGR | NAG 3 1421 DREXEL UNIVERSITY 8287 FUEL-AIR MIXING IN LEAN BURN DIRECT INJECTION COMBUSTION 12/17/1992 – 07/31/1998 FY98: \$25,574 Total: \$268,821 Prin. Invest.: K J CHOI Tech. Officer: LERC/R R TACINA CASE Category: 41 – AERONAUTICAL ENGR |

NAG 3 1715 DREXEL UNIVERSITY **8288**
IN VIVO EVALUATION OF A NOVEL AND IMPROVED INSTRUMENT FOR
OBJECTIVE EVALUATION OF OPHTHALMIC LENS OP
 03/01/1995 - 02/18/1999 FY98: \$49,974 Total: \$70,947
Prin. Invest.: S DUBIN VMD
Tech. Officer: LERC/J S LING, LERC/B S SINGH
CASE Category: 56 - MEDICL

NAG 3 1884 DREXEL UNIVERSITY **8289**
COMBUSTION OF UNCONFINED DROPLET CLUSTERS IN MICRO GRAVITY
 06/01/1996 - 05/31/2000 FY98: \$72,662 Total: \$195,452
Prin. Invest.: D A RUFF
Tech. Officer: LERC/D D ROSS, LERC/M A SACKSTEDTER
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2043 DREXEL UNIVERSITY **8290**
QUANTITATIVE EVALUATION OF ICE ACCRETION CHARACTERISTICS
 04/28/1997 - 09/30/1997 FY98: \$0 Total: \$62,674
Prin. Invest.: G A RUFF
Tech. Officer: LERC/S S CHEN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2171 DREXEL UNIVERSITY **8291**
DEVELOPMENT OF METHODS TO QUANTIFY ICE ACCRETION CHARACTERISTICS
 06/04/1998 - 01/31/1999 FY98: \$89,114 Total: \$89,114
Prin. Invest.: C A RUFF
Tech. Officer: LERC/M G POTAPCZUK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 6029 DREXEL UNIVERSITY **8292**
WORK IN SUPPORT OF THE NASA ESS HPC PROGRAM
 10/06/1997 - 09/30/1999 FY98: \$339,888 Total: \$339,888
Prin. Invest.: B FRYXELL
Tech. Officer: GSFC/J R FISCHER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 5 6964 DREXEL UNIVERSITY **8293**
STELLAR AND BINARY EVOLUTION IN GLOBULAR CLUSTERS - ATP
 02/10/1998 - 02/14/2001 FY98: \$115,556 Total: \$115,556
Prin. Invest.: S L MCMILLAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NCC 1 224 DREXEL UNIVERSITY **8294**
ROBUST CONTROL OF NONLINEAR AND PARAMETER DEPENDENT SYSTEMS
 04/03/1996 - 11/15/1998 FY98: \$42,480 Total: \$152,000
Prin. Invest.: B C CHANG, H G KWATNY
Tech. Officer: LARC/C M BELCASTRO
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 278 DREXEL UNIVERSITY **8295**
EFFECTS OF ELECTROMAGNETIC-INDUCED FAILURE MODES: MODELING AND ANALYSIS 1/3
 02/25/1998 - 12/31/1998 FY98: \$55,500 Total: \$55,500
Prin. Invest.: A C LAU, B C CHANG
Tech. Officer: LARC/C M BELCASTRO
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 297 DREXEL UNIVERSITY **8296**
A STUDY OF THE CHEMISTRY OF SULFUR IN THE INTER-TROPICAL AND SOUTH PACIFIC CONVERGENCE ZONES
 04/28/1998 - 04/28/1999 FY98: \$238,000 Total: \$238,000
Prin. Invest.: A R BANDY, D C THORNTON
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3365 FRANKLIN-MARSHALL COLLEGE **8297**
ISO GUEST OBSERVER PROJECTS: "A" STARS IN YOUNG OPEN CLUSTERS AND DUST AROUND SOLAR-TYPE STARS....
 08/15/1996 - 08/14/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: D E BACKMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6858 FRANKLIN-MARSHALL COLLEGE **8298**
STATISTICAL ALGORITHMS FOR THE ANALYSIS OF SPACE-BASED DATASETS
 02/09/1998 - 02/14/1999 FY98: \$31,912 Total: \$31,912
Prin. Invest.: D BACKMAN
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NCC 2 5263 FRANKLIN-MARSHALL COLLEGE **8299**
NEARBY STARS (NSTARS) DATABASE
 04/09/1998 - 12/31/1998 FY98: \$48,400 Total: \$48,400
Prin. Invest.: D E BACKMAN
Tech. Officer: ARC/L J CAROFF
CASE Category: 11 - ASTRONOMY

NAG 5 3015 HAVERFORD COLLEGE **8300**
A SEARCH FOR HOT, DIFFUSE GAS IN SUPERCLUSTERS
 07/19/1995 - 07/31/1997 FY98: \$0 Total: \$39,200
Prin. Invest.: S P BOUGHN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4854 LAFAYETTE COLLEGE **8301**
DENSITIES AND PHASE EQUILIBRIA TO 1.0 GPa AND 120K AND THEIR ROLE IN THE LOW TEMPERATURE IGNEOUS
 06/26/1997 - 04/30/1998 FY98: \$0 Total: \$33,300
Prin. Invest.: D HOGENBOOM
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7620 LAFAYETTE COLLEGE **8302**
EXPERIMENTAL DENSITIES AND PHASE EQUILIBRIA TO 400 MPa OF HYDRATED SALT SOLUTIONS AND NA-COMPOUNDS
 07/24/1998 - 01/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: D L HOGENBOOM
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAGW 3521 LAFAYETTE COLLEGE **8303**
NAGW-3521/LAFAYETTE COLLEGE/DENSITIES AND PHASE EQUILIBRIA TO 1.4 GPa AND 120K
 04/16/1993 - 10/31/1997 FY98: \$0 Total: \$143,328
Prin. Invest.: D HOGENBLOOM
Tech. Officer: HQ/J BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

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| <p>NAG 1 1885 LEHIGH UNIVERSITY 8304 VORTEX-BODY INTERACTIONS: A CRITICAL ASSESMENT 12/16/1996 - 12/31/1998 FY98: \$15,000 Total: \$30,001 <i>Prin. Invest.:</i> D O ROCKWELL <i>Tech. Officer:</i> LARC/B S LAZOS, LARC/M J WALSH <i>CASE Category:</i> 46 - MECHANICAL ENGR</p> | <p>NAG 9 1044 PENNSYLVANIA STATE UNIV -HERSHEY MED. 8312 NEURO /ASCULAR RESPONSE TO BED REST 07/15/1998 - 07/14/1999 FY98: \$57,000 Total: \$57,000 <i>Prin. Invest.:</i> L I SINOWAY <i>Tech. Officer:</i> JSC/C F SAWIN <i>CASE Category:</i> 56 - MEDICL</p> |
| <p>NAG 3 1578 LEHIGH UNIVERSITY 8305 HYPERSONIC THREE - DIMENSIONAL BOUNDARY LAYER SEPARATION 03/08/1994 - 04/22/1998 FY98: \$0 Total: \$190,379 <i>Prin. Invest.:</i> J D WALKER <i>Tech. Officer:</i> LERC/L A POVINELLI <i>CASE Category:</i> 41 - AERONAUTICAL ENGR</p> | <p>NAGW 4400 PENNSYLVANIA STATE UNIV -HERSHEY MED. 8313 EFFECTS OF BEDREST ON FOREARM MUSCLE 04/03/1998 - 02/28/1998 FY98: \$0 Total: \$227,579 <i>Prin. Invest.:</i> L I SINOWAY <i>Tech. Officer:</i> HQ/V THORNE <i>CASE Category:</i> 56 - MEDICL</p> |
| <p>NAG 5 4492 LINCOLN UNIVERSITY - PA. 8306 PACE AWARD-PRECOLLEGE AWARDS FOR EXCELLENCE IN MECHANICAL ENGINEERING AND TECHNOLOGY PROGRAM 05/15/1997 - 09/30/1998 FY98: \$100,000 Total: \$200,000 <i>Prin. Invest.:</i> R LANGLEY <i>Tech. Officer:</i> GSFC/M STOUTSENBERGER <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p> | <p>NAG 1 399 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8314 STUDIES OF RADIATION AND MICROPHYSICS IN CIRRUS AND MARINE STRATOCUMULUS 05/25/1999 - 09/30/1998 FY98: \$0 Total: \$592,635 <i>Prin. Invest.:</i> T P ACKERMAN <i>Tech. Officer:</i> LARC/T OWENS <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE</p> |
| <p>NAGW 4654 LINCOLN UNIVERSITY - PA. 8307 PROJECT EXCITE: EXPLORING THE CHALLENGE OF INTEGRATING TECHNOLOGY AND EDUCATION 08/16/1995 - 02/28/1997 FY98: \$0 Total: \$185,263 <i>Prin. Invest.:</i> J ISAAC <i>Tech. Officer:</i> HQ/B L WHITE <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p> | <p>NAG 1 1367 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8315 COMPUTATIONAL AEROACOUSTICS USING NONLINEAR CFD TECHNIQUES ON PARALLEL COMPUTERS 01/15/1992 - 06/30/1998 FY98: \$1 Total: \$320,001 <i>Prin. Invest.:</i> L N LONG <i>Tech. Officer:</i> LARC/J W POSEY, LARC/W R WATSON <i>CASE Category:</i> 41 - AERONAUTICAL ENGR</p> |
| <p>NAG13 47 LINCOLN UNIVERSITY - PA. 8308 EXPLORING THE CHALLENGE OF INTEGRATING TECHNOLOGY AND EDUCATION 08/16/1995 - 10/31/1998 FY98: \$151,500 Total: \$269,494 <i>Prin. Invest.:</i> D ROYER <i>Tech. Officer:</i> SSC/A JOYCE <i>CASE Category:</i> 47 - METAL & MATERIALS ENGR</p> | <p>NAG 1 1441 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8316 EEG AND CHAOS: DESCRIPTION OF UNDERLYING DYNAMICS AND ITS RELATION TO DISSOCIATIVE STATES 06/25/1992 - 03/13/1998 FY98: \$4,328 Total: \$195,947 <i>Prin. Invest.:</i> M J RAY <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> LARC/A T POPE <i>CASE Category:</i> 69 - PSYCHOLOGY, OTHER</p> |
| <p>NGT 5 59 LINCOLN UNIVERSITY - PA. 8309 TO HELP STUDENTS EASE THE TRANSITION FROM HIGH SCHOOL 09/15/1997 - 04/30/1999 FY98: \$90,000 Total: \$180,000 <i>Prin. Invest.:</i> D LANGLEY <i>Tech. Officer:</i> GSFC/D MENCHAN <i>CASE Category:</i> 29 - MATH/COMPUTER SCI, OTHER</p> | <p>NAG 1 1538 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8317 SONIC BOOM NOISE PENETRATION INTO THE OCEAN MY 1/3 08/15/1994 - 12/14/1997 FY98: \$0 Total: \$172,290 <i>Prin. Invest.:</i> V W SPARROW <i>Tech. Officer:</i> LARC/G L MCANINCH <i>CASE Category:</i> 41 - AERONAUTICAL ENGR</p> |
| <p>NAG 5 3368 PENN. ST. U. @ ERIE-BEHREND COLLEGE 8310 ISO SOLAR SYSTEM MISSION-TEAM MEMBER SUPPORT 08/28/1996 - 08/31/1999 FY98: \$0 Total: \$60,000 <i>Prin. Invest.:</i> R F KNACKE <i>Tech. Officer:</i> GSFC/D WEST <i>CASE Category:</i> 11 - ASTRONOMY</p> | <p>NAG 1 1333 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8318 THE DIRECT NUMERICAL SIMULATION OF PERFORATED PLATES LINERS 04/29/1996 - 04/28/1999 FY98: \$50,000 Total: \$121,000 <i>Prin. Invest.:</i> L N LONG <i>Tech. Officer:</i> LARC/M B TRACY <i>CASE Category:</i> 41 - AERONAUTICAL ENGR</p> |
| <p>NAG 9 1034 PENNSYLVANIA STATE UNIV -HERSHEY MED. 8311 EFFECT OF HEAD MOVEMENTS ON SYMPATHETIC NERVE ACTIVITY IN HUMANS: ROLE OF THE VESTIBULAR SYSTEM 07/20/1998 - 07/19/1999 FY98: \$36,000 Total: \$36,000 <i>Prin. Invest.:</i> C A RAY <i>Tech. Officer:</i> JSC/C F SAWIN <i>CASE Category:</i> 56 - MEDICL</p> | <p>NAG 1 1375 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8319 SIMULATION OF THE DETECTION OF VORTEX WAKES USING A RADAR ACOUSTIC SOUNDING SYSTEM (RASS) 10/18/1996 - 01/31/1998 FY98: \$25,000 Total: \$76,010 <i>Prin. Invest.:</i> P J MORRIS <i>Tech. Officer:</i> LARC/R F NEECE <i>CASE Category:</i> 29 - MATH/COMPUTER SCI, OTHER</p> |

NAG 1 1924 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8320**
NUMERICAL SIMULATION OF THE EFFECTS OF FUSELAGE SCATTERING
ON THE NOISE RADIATED BY ROTORCRAFT
 05/13/1997 - 05/12/1999 FY98: \$50,000 Total: \$74,735
Prin. Invest.: P J MORRIS
Tech. Officer: LARC/K S BRENTNER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2050 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8321**
ROTOR LEAD-LAG CONTROL FOR HELICOPTER VIBRATION & NOISE
REDUCTION
 03/31/1998 - 12/31/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: F S GHANDI
Tech. Officer: LARC/M W NIXON, LARC/M L WILBUR
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2064 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8322**
STUDIES OF RADIATION AND MICROPHYSICS IN CIRRUS AND MARINE
STRATOCUMULUS CLOUDS
 05/19/1998 - 02/28/1999 FY98: \$45,000 Total: \$45,000
Prin. Invest.: T P ACKERMAN
Tech. Officer: LARC/D S MCDUGAL, LARC/J L RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2074 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8323**
LIDAR ATMOSPHERIC MEASUREMENTS LIDAR ATMOSPHERIC STUDIES
 05/19/1998 - 06/30/1998 FY98: \$9,525 Total: \$9,525
Prin. Invest.: C R PHILBRICK
Tech. Officer: LARC/D S MCDUGAL, LARC/J L RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2093 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8324**
ROBUST PARALLEL COMPUTATIONAL METHODS FOR UNSTEADY FLUID
DYNAMICS
 07/27/1998 - 06/30/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: L N LONG
Tech. Officer: LARC/F FARASSAT, LARC/J W POSEY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2095 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8325**
BIOCYBERNETIC SYSTEMS IN RELATION TO ATTENTIONAL FOCI: CON-
TROL OF HAZARDOUS AWARENESS
 07/29/1998 - 07/14/1999 FY98: \$15,000 Total: \$15,000
Prin. Invest.: W J RAY
Tech. Officer: LARC/A T POPE
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 2 826 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8326**
PARTICIPATION AS MISSION SCIENTIST FOR THE SPADEII MISSION
 02/22/1993 - 01/31/1999 FY98: \$98,752 Total: \$823,395
Prin. Invest.: W BRUNE
Tech. Officer: ARC/E CONDON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1117 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8327**
HOX MEASUREMENTS IN SONEW WITH THE AIRBORNE TROPOSPHERIC
OXIDES SENSOR (ATHOS)
 02/25/1997 - 12/31/1998 FY98: \$276,586 Total: \$634,986
Prin. Invest.: W H BRUNE
Tech. Officer: ARC/R S HIPSKIND
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1152 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8328**
PERFORMANCE CHARACTERIZATION OF OBSTACLE DETECTION ALGO-
RITHMS FOR AIRCRAFT NAVIGATION
 08/14/1997 - 11/30/1998 FY98: \$259,208 Total: \$343,380
Prin. Invest.: R KASTRUI, O I CAMPS
Tech. Officer: ARC/L S TONE, ARC/B T SWEET
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1165 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8329**
COMPUTATIONAL MODELING
 10/17/1997 - 03/31/1998 FY98: \$125,000 Total: \$125,000
Prin. Invest.: R J DAVIS, H J GIBELING
Tech. Officer: ARC/M MEYYAPPAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 2 1182 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8330**
CONDITION - BASED MONITORING OF LARGE - SCALE FACILITIES
 02/26/1998 - 12/31/1998 FY98: \$350,000 Total: \$350,000
Prin. Invest.: D L HALL
Tech. Officer: ARC/A PATTERSON-HINE
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1236 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8331**
SCALABLE NUMERICAL ALGORITHMS ON NONHETEROGENEOUS COMPUT-
ING ENVIRONMENTS WITH DYNAMIC ADAPTIVE ROUTI
 07/13/1998 - 06/30/1999 FY98: \$60,000 Total: \$60,000
Prin. Invest.: J XU
Tech. Officer: ARC/T J BARTH
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 1287 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8332**
THE GRAVITATIONAL ROLE IN LIQUID PHASE SINTERING
 07/03/1991 - 11/07/1997 FY98: \$25,000 Total: \$1,089,000
Prin. Invest.: R M GERMAN
Tech. Officer: LERC/R L DEWITT
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1586 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8333**
NEURAL-NETWORK-BASED ANALYSIS OF SPACE ACCELERATION MEA-
SUREMENT SYSTEM (SAMS) DATA
 04/04/1994 - 12/31/1997 FY98: \$0 Total: \$223,745
Prin. Invest.: A SINHA
Tech. Officer: LERC/C M GRODSINSKY
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 3 1736 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8334**
THREE-DIMENSIONAL FLOW FIELD IN A TURBINE NOZZLE AND ROTOR
BLADE FLOWS
 04/17/1995 - 10/20/1998 FY98: \$11,490 Total: \$137,490
Prin. Invest.: B LAKSHMINARAYANA
Tech. Officer: LERC/R BOYLE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1818 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8335**
COMPUTATIONAL NOISE STUDIES OF AN EJECTOR TYPE SUPERSONIC
PLUG - NOZZLE
 03/27/1996 - 03/26/1997 FY98: \$0 Total: \$73,623
Prin. Invest.: I S DAS
Tech. Officer: LERC/E KREJSA
CASE Category: 41 - AERONAUTICAL ENGR

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| <p>NAG 3 1871 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8336 MICROGRAVITY EFFECTS ON TRANSENDOTHELIAL TRANSPORT 05/22/1996 - 05/21/2000 FY98: \$89,000 Total: \$281,000 <i>Prin. Invest.:</i> J M TAZBELL <i>Tech. Officer:</i> LERC/J S LING, LERC/B S SINGH CASE Category: 13 - PHYSICS</p> | <p>NAG 4 113 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8344 1997 TEACHER TUTORIALS: TEACHER TRAINING & TOOLS FOR WEB-BASED SCIENCE, MATH & TECHNOLOGY ETC 01/21/1997 - 01/21/2000 FY98: \$52,998 Total: \$128,023 <i>Prin. Invest.:</i> B GRABOWSKI <i>Tech. Officer:</i> DFRCL DUKE CASE Category: 29 - MATH/COMPUTER SCI, OTHER</p> |
| <p>NAG 3 1995 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8337 AERO-THERMO-STRUCTURAL OPTIMIZATION OF COOLED TURBINE BLADES 12/02/1996 - 11/26/1999 FY98: \$96,610 Total: \$201,227 <i>Prin. Invest.:</i> G S DULIKRAVICH <i>Tech. Officer:</i> LERC/H J GLADDEN, LERC/C LAWRENCE CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NAG 4 21 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8345 EVALUATION OF IITA COOPERATIVE AGREEMENT PROJECTS FOR CLASS-ROOM USABILITY 03/27/1997 - 09/30/1997 FY98: \$0 Total: \$40,874 <i>Prin. Invest.:</i> B GRABOWSKI <i>Tech. Officer:</i> DFRCL DUKE CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p> |
| <p>NAG 3 2016 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8338 DAMAGE MITIGATING CONTROL OF AEROSPACE PROPULSION SYSTEMS 02/28/1997 - 02/28/1998 FY98: \$0 Total: \$40,017 <i>Prin. Invest.:</i> A RAY, M CARPINO <i>Tech. Officer:</i> LERC/C F LORENZO CASE Category: 46 - MECHANICAL ENGR</p> | <p>NAG 4 143 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8346 EVALUATION OF IITA COOPERATIVE AGREEMENT PROJECTS FOR CLASS-ROOM USABILITY PART II 01/15/1993 - 11/18/1998 FY98: \$55,363 Total: \$55,363 <i>Prin. Invest.:</i> B GRABOWSKI <i>Tech. Officer:</i> DFRCL DUKE CASE Category: 22 - COMPUTER SCIENCE</p> |
| <p>NAG 3 2025 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8339 COMPUTATION OF VISCOUS TRANSITIONAL FLOWS IN LOW PRESSURE TURBINES 03/13/1997 - 10/23/1998 FY98: \$26,495 Total: \$72,751 <i>Prin. Invest.:</i> B LAKSHMINARAYANA <i>Tech. Officer:</i> LERC/D E ASHPIS CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NAG 5 100 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8347 HIGH ANGULAR RESOLUTION X-RAY AND XUV ASTRONOMY OBSERVATIONS 10/01/1981 - 06/30/1997 FY98: \$0 Total: \$7,402,892 <i>Prin. Invest.:</i> G P GARMIE <i>Tech. Officer:</i> GSFC/L J EARLY, GSFC/R H PLESS CASE Category: 11 - ASTRONOMY</p> |
| <p>NAG 3 2066 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8340 DEVELOPMENT OF A SHOCK-ASSOCIATED NOISE PREDICTION SCHEME IN SUPERSONIC NOZZLES WITH CENTER BODIES 08/11/1997 - 05/31/1998 FY98: \$0 Total: \$9,501 <i>Prin. Invest.:</i> I DAS <i>Tech. Officer:</i> LERC/E KREJSA CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NAG 5 1698 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8348 CNO PROCESSING IN MASSIVE ALGOL BINARIES 07/15/1991 - 07/14/1998 FY98: \$0 Total: \$40,674 <i>Prin. Invest.:</i> R A WADE <i>Tech. Officer:</i> GSFC/D WEST CASE Category: 11 - ASTRONOMY</p> |
| <p>NAG 3 2104 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8341 THE GRAVITATIONAL ROLE IN LIQUID PHASE SINTERING THE GRAVITATIONAL ROLE IN LIQUID PHASE SINTERING 01/07/1998 - 10/31/1998 FY98: \$180,000 Total: \$180,000 <i>Prin. Invest.:</i> R M GERMAN, NONE <i>Tech. Officer:</i> LERC/T K GLASGOW CASE Category: 47 - METAL & MATERIALS ENGR</p> | <p>NAG 5 1903 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8349 THREE DIMENSIONAL STRUCTURE AND DEFORMATION OF TRANSFORM PLATE BOUNDARIES: GOEDETIC AND MODELING. 02/24/1992 - 07/31/1997 FY98: \$0 Total: \$268,000 <i>Prin. Invest.:</i> K P FURLONG <i>Tech. Officer:</i> GSFC/B G BILLS CASE Category: 32 - GEOLOGICAL SCIENCE</p> |
| <p>NAG 3 2146 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8342 DAMAGE MITIGATING CONTROL OF AEROSPACE PROPULSION SYSTEMS 03/31/1998 - 08/31/1999 FY98: \$18,997 Total: \$18,997 <i>Prin. Invest.:</i> A RAY <i>Tech. Officer:</i> LERC/C F LORENZO CASE Category: 46 - MECHANICAL ENGR</p> | <p>NAG 5 2141 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8350 A SYSTEMATIC STUDY OF X-RAY EMISSION FROM ACTIVE STELLAR DETACHED SYSTEMS 11/23/1992 - 11/30/1996 FY98: -\$1,081 Total: \$13,919 <i>Prin. Invest.:</i> R A WADE <i>Tech. Officer:</i> GSFC/R PETRE CASE Category: 11 - ASTRONOMY</p> |
| <p>NAG 3 2151 PENNSYLVANIA STATE UNIV. - UNIV. PARK 8343 MODELING OF COMBUSTION RESPONSE OF GAS TURBINE SPRAY SWIRL-STABILIZED INJECTORS TO ACOUSTIC OSCILLATIONS 04/07/1998 - 01/31/2001 FY98: \$40,000 Total: \$40,000 <i>Prin. Invest.:</i> V G YANG <i>Tech. Officer:</i> LERC/K L BREISACHER CASE Category: 41 - AERONAUTICAL ENGR</p> | |

NAG 5 2362 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8351**
COSMOLOGICAL GAMMA-RAY BURST MODELS: SIGNATURES A ND
CONSTRAINTS
 09/09/1993 – 10/14/1997 FY98: \$0 Total: \$138,680
Prin. Invest.: P I MESZAROS
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2537 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8352**
ASUKA OBSERVATIONS OF THE SNR VRO 42.05.01
 02/28/1994 – 09/14/1997 FY98: \$0 Total: \$46,000
Prin. Invest.: D N BURROWS
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 2701 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8353**
AN ASSESSMENT OF THE RADIATIVE IMPACT OF CONTRAIL BASD ON
ANALYSIS AND OBJECTIVE CLASSIFICATION
 08/24/1994 – 08/31/1997 FY98: \$0 Total: \$193,103
Prin. Invest.: T P ACKERMAN
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 2807 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8354**
NEUTRON STAR ATMOSPHERES
 12/01/1994 – 12/14/1997 FY98: \$0 Total: \$120,000
Prin. Invest.: G PAVLOV
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 2857 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8355**
PHYSICS AND COSMOLOGY OF HIGH-ENERGY SOURCES
 01/23/1995 – 01/31/1999 FY98: \$0 Total: \$285,000
Prin. Invest.: P MESZAROS
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 2927 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8356**
EVALUATION AND UNDERSTANDING PARAMETERIZED CON- VECTIVE
PROCESSES AND THEIR ROLE IN THE ECT....
 04/05/1995 – 04/14/1998 FY98: \$0 Total: \$94,910
Prin. Invest.: M FRITSCH
Tech. Officer: GSFC/W TAO
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 3040 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8357**
CHROMOSPHERIC DOPPLER IMAGING AND THE SEARCH FOR THE MAG-
NETIC CYCLE IN AR LACERT
 08/01/1995 – 08/14/1997 FY98: \$0 Total: \$36,883
Prin. Invest.: J E NEFF
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3043 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8358**
CONTINUATION OF CONVERSION OF GINGA DATABASES TO FITS DATA
SETS
 08/03/1995 – 08/14/1997 FY98: \$0 Total: \$39,300
Prin. Invest.: J A NOUSEK
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3166 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8359**
MISSION OPERATIONS AND DATA ANALYSIS FOR THE CUBIC EXPERI-
MENT
 02/12/1996 – 02/14/1999 FY98: \$0 Total: \$458,680
Prin. Invest.: D BURROWS
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3270 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8360**
COORDINATED X-RAY AND VLBI OBSERVATIONS OF X-RAY S ELECTED BL
LACERTAE OBJECTS
 07/01/1996 – 12/31/1997 FY98: \$0 Total: \$19,096
Prin. Invest.: R KOLLGUARD
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3403 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8361**
DETAILED INVESTIGATION INTO THE USE OF PLANETARY NEBULAE AS
STANDARD CANDLES
 09/10/1996 – 09/14/1997 FY98: \$0 Total: \$79,402
Prin. Invest.: R CLARDULLO
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3404 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8362**
X-RAY EMISSION AND EARLY STELLAR EVOLUTION
 09/09/1996 – 03/14/1998 FY98: \$0 Total: \$34,126
Prin. Invest.: E FEIGELSON
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 3459 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8363**
ADVANCED SPECTRUM MODELLING OF ACCRETION DISKS FOR CLOSE
BINARY STAR
 10/10/1996 – 04/30/1999 FY98: \$0 Total: \$98,198
Prin. Invest.: R A WADE
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3489 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8364**
A MULTIWAVELENGTH STUDY OF THE LOOP I superbubble
 11/01/1996 – 10/31/1999 FY98: \$31,250 Total: \$62,500
Prin. Invest.: D N BURROWS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3654 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8365**
PLANETARY HABITABILITY
 03/25/1997 – 06/30/1999 FY98: \$83,000 Total: \$166,000
Prin. Invest.: D F KASTING
Tech. Officer: GSFC/M MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 3707 PENNSYLVANIA STATE UNIV. – UNIV. PARK **8366**
PLANT GRAVITROPISMS AND THE ROLE OF EXPANSINS
 12/05/1996 – 07/31/1999 FY98: \$126,871 Total: \$247,030
Prin. Invest.: D J COSGROVE
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 5 3801 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8367**
COSMOLOGICAL GAMMA RAY BURST MODELS: SIGNATURES AND
 11/27/1996 - 11/30/1998 FY98: \$25,000 Total: \$50,000
Prin. Invest.: P MESZAROB
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3856 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8368**
ASSESSING THE IMPACT OF EXPANDING URBAN LAND USE USING
REMOTE SENSING DATA & PHYSICALLY BASED SOIL
 12/19/1996 - 12/14/1998 FY98: \$131,742 Total: \$241,169
Prin. Invest.: G W PETERSEN
Tech. Officer: GSFC/A J TUYAHOV
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3970 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8369**
USE OF ARABIDOPSIS TRANSPOSON MUTANTS IN THE STUDY
 03/05/1997 - 02/28/1999 FY98: \$90,202 Total: \$244,611
Prin. Invest.: N V FEDOROFF
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3976 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8370**
SIMULATION OF ATMOSPHERIC OXYGEN IN THE COMMUNITY
 02/26/1997 - 12/31/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: R NAJJAR
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4018 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8371**
PROVIDES FUNDING FOR YEAR ONE/INCREMENTAL FOR YEAR TWO
 02/28/1997 - 02/28/1999 FY98: \$0 Total: \$80,000
Prin. Invest.: C RUT
Tech. Officer: GSFC/D M LE VINE, GSFC/L L THOMPSON
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 4165 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8372**
EXPERIMENTAL RHEOLOGY OF THE VENUSIAN LITHOSPHERE
 03/28/1997 - 08/28/1998 FY98: \$10,000 Total: \$98,104
Prin. Invest.: D MACKWELL
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4301 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8373**
A STUDY OF PLANETARY SYSTEMS AROUND NEUTRON STARS
 04/09/1997 - 02/28/1999 FY98: \$36,667 Total: \$91,667
Prin. Invest.: D WOLSZCZAN
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4349 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8374**
PARENT MOLECULES IN COMET C/1995 O1 (HALE BOPP)
 04/17/1997 - 06/30/1997 FY98: -\$43,105 Total: \$0
Prin. Invest.: D P WOMACK
Tech. Officer: GSFC/W HUEBNER
CASE Category: 11 - ASTRONOMY

NAG 5 4553 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8375**
THE GLOBAL WATER CYCLE: EXTENSION ACROSS THE EARTH
 06/12/1997 - 03/31/1999 FY98: \$1,665,000 Total: \$3,286,984
Prin. Invest.: E BARRON
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4801 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8376**
A TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZAR
 08/09/1997 - 07/31/1998 FY98: \$0 Total: \$16,955
Prin. Invest.: J PESCE
Tech. Officer: GSFC/J NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 4826 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8377**
AN ASCA OBSERVATION OF MARKARIAN 6: COMPLEX ABSORPTION REGION
 06/20/1997 - 06/30/1999 FY98: \$17,200 Total: \$32,000
Prin. Invest.: W BRANDT
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4840 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8378**
THE REGENERATING PROTOPLAST AS A SINGLE CELL MODEL IN PLANTS
 06/26/1997 - 05/31/1999 FY98: \$24,851 Total: \$156,247
Prin. Invest.: R CYR, NONE
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4927 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8379**
"EFFECTS OF BEDREST ON FOREARM MUSCLE REFLEXES"
 06/23/1997 - 02/28/1998 FY98: \$0 Total: \$117,442
Prin. Invest.: L SINOWAY
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 5015 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8380**
COORDINATED STUDIES OF EQUATORIAL MESOSPHERIC & LOWER THERMOSPHERIC DYNAMICS BY ROCKET & CADRE
 05/28/1993 - 12/31/1998 FY98: \$0 Total: \$152,688
Prin. Invest.: J D RUSSELL
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5035 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8381**
COORDINATED ROCKET AND GROUND-BASED STUDIES OF HIGH-LATITUDE FINE-SCALE STRUCTURE IN ION/ODIUM..
 04/19/1995 - 04/30/1999 FY98: \$79,000 Total: \$516,849
Prin. Invest.: T J KANE
Tech. Officer: GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5065 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8382**
HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) FIRST YEAR OF FUNDING FOR GRANT
 05/03/1996 - 11/30/1998 FY98: \$190,000 Total: \$507,000
Prin. Invest.: J J BEATTY
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 5093 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8383**
RESEARCH IN X-RAY ASTRONOMY
 11/22/1996 - 03/31/1999 FY98: \$143,169 Total: \$905,742
Prin. Invest.: D BURROWS, G P GARMIRE
Tech. Officer: GSFC/W GURKIN
CASE Category: 13 - PHYSICS

NAG 5 5136 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8384**
SPIRIT: STUDENT PROJECTS INVOLVING ROCKET INVESTIGATION TECHNIQUES
 04/14/1997 - 10/13/1999 FY98: \$0 Total: \$35,000
Prin. Invest.: J D MITCHELL
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5145 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8385**
CHARACTERIZATION OF SIGMA-0 BLOOMS AS CONSTRAINTS ON TOPEX MICROWAVE RADIOMETER CALM WATER EMISSION
 06/17/1997 - 12/31/1998 FY98: -\$14,256 Total: \$41,546
Prin. Invest.: N WHITE
Tech. Officer: GSFC/D VANDEMARK
CASE Category: 11 - ASTRONOMY

NAG 5 5169 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8386**
PROJECT DROPPS: THE DISTRIBUTION AND ROLE OF PARTICLES IN THE POLAR SUMMER MESOSPHERE
 03/13/1998 - 12/31/1998 FY98: \$55,826 Total: \$55,826
Prin. Invest.: J D MITCHELL
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5210 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8387**
COSMIC RAY ENERGISTICS AND MASS (CREAM) COSMIC RAY ENERGISTICS AND MASS (CREAM)
 09/22/1998 - 11/30/1999 FY98: \$85,600 Total: \$85,600
Prin. Invest.: J J BEATTY
Tech. Officer: WFF/B A MERRITT
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6023 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8388**
X-RAY MONITORING OF STRONG VARIABILITY IN THE ULTR NARROW-LINE SEYFERT 1 GALAXY RX J0947.0+4721
 08/21/1997 - 08/31/1999 FY98: \$0 Total: \$8,100
Prin. Invest.: W BRANDT
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6194 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8389**
- REMOTELY SENSED INDEX OF DEFORESTATION/URBANIZATION MODELS
 08/28/1997 - 12/31/1998 FY98: \$64,302 Total: \$174,302
Prin. Invest.: T CARLSON
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6197 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8390**
DEVELOPMENT OF NANOTECHNOLOGY SENSORS FOR SPACE APPLIED FALLING SPHERE FOR THE MEASUREMENT OF DENSITY
 08/26/1997 - 05/31/1999 FY98: \$30,022 Total: \$95,075
Prin. Invest.: D L CROSKY
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 6199 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8391**
"THE BIOMECHANICS OF EXERCISE COUNTERMEASURES"
 08/12/1997 - 02/14/1999 FY98: \$0 Total: \$137,378
Prin. Invest.: P CAVANAGH
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 11 - ASTRONOMY

NAG 5 6207 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8392**
MECHANISM OF LENGTH-OF-DAY VARIABILITY
 08/01/1997 - 07/31/1999 FY98: \$61,000 Total: \$116,851
Prin. Invest.: S FELDSTEIN
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6357 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8393**
SOIL MOISTURE, SUBSURFACE STORAGE AND RUNOFF AS A DYNAMICAL SYSTEM
 09/29/1997 - 09/14/1998 FY98: \$0 Total: \$63,500
Prin. Invest.: C DUFFY
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6389 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8394**
MODELING THE AIR-SEA FLUXES OF CARBONYL SULFIDE AND CARBON MONOXIDE USING REMOTELY SENSED DATA
 10/17/1997 - 08/31/2000 FY98: \$118,272 Total: \$118,272
Prin. Invest.: R NAJJAR, NONE
Tech. Officer: GSFC/J YODER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6398 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8395**
TWO-YEAR NASA FELLOWSHIP AT PENN STATE
 10/24/1997 - 10/31/1998 FY98: \$36,500 Total: \$36,500
Prin. Invest.: D STAUFFER
Tech. Officer: GSFC/A NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6399 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8396**
THE GAS AND THE STARS OF INTERMEDIATE REDSHIFT GALAXIES (LTSA)
 10/10/1997 - 10/14/1998 FY98: \$61,494 Total: \$61,494
Prin. Invest.: J CHARLTON
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6451 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8397**
EVALUATION AND INTERCOMPARISON OF THREE-DIMENSIONAL MARINE CARBON CYCLE MODELS
 10/24/1997 - 12/31/1998 FY98: \$55,218 Total: \$55,218
Prin. Invest.: R NAJJAR
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6656 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8398**
SPACE-TIME SCALING OF WATER TRANSFERS BETWEEN THE LAND SURFACE AND THE LOWER ATMOSPHERE
 12/04/1997 - 10/31/1999 FY98: \$163,955 Total: \$163,955
Prin. Invest.: A P BARROS
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6713 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8399**
PHASE COMPRESSED IMAGE DATA FOR BROAD-AREA LANDSCAPE
CHANGE ANALYSES AND HARMONIZATION OF IMAGE
 12/30/1997 - 12/31/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: W MEYERS
Tech. Officer: GSFC/D WILLIAMS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6737 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8400**
THE STATISTICAL CONSULTING CENTER FOR ASTRONOMY (S CCA)
 12/17/1997 - 12/31/1998 FY98: \$31,686 Total: \$31,686
Prin. Invest.: M AKRITAS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6768 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8401**
X-RAY EMISSION FROM THE YOUNGEST STARS
 01/21/1998 - 12/14/1998 FY98: \$18,500 Total: \$18,500
Prin. Invest.: E FEIGELSON
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 6852 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8402**
AN RXTE LONG LOOK AT THE BRIGHT SEYFERT 1 GALAXY MCG-6-30-15
 01/13/1998 - 01/14/1999 FY98: \$10,772 Total: \$10,772
Prin. Invest.: W BRANDT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 6906 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8403**
IMPROVING THE GINGA ANALYSIS TOOLS
 02/13/1998 - 01/31/1999 FY98: \$20,100 Total: \$20,100
Prin. Invest.: J NOUSEK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6907 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8404**
SOFT X-RAY RADIATION FROM ISOLATED NEUTRON STARS
 02/17/1998 - 01/31/1999 FY98: \$43,100 Total: \$43,100
Prin. Invest.: G PAVLOV
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7017 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8405**
NEUTRON STAR ATMOSPHERES - ATP
 02/17/1998 - 02/14/1999 FY98: \$95,000 Total: \$95,000
Prin. Invest.: G G PAVLOV
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7121 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8406**
MULTIFREQUENCY MONITORING OF MRK 501
 04/13/1998 - 04/14/1999 FY98: \$8,875 Total: \$8,875
Prin. Invest.: R M SAMBRUNA
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7256 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8407**
BROAD-BAND SPECTRA AND VARIABILITY OF THE BRIGHT N ARROW-LINE SEYFERT 1 GALAXY H0707-495 & COORDI
 05/01/1998 - 06/30/1999 FY98: \$21,768 Total: \$21,768
Prin. Invest.: W N BRANDT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7276 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8408**
SIMULTANEOUS XTE AND AXAF OBSERVATIONS OF THE CIRCINUS GALAXY; MULTIFREQUENCY MONITORING O
 04/15/1998 - 04/14/1999 FY98: \$11,554 Total: \$11,554
Prin. Invest.: R SAMBRUNA
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7382 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8409**
XTE PROPOSAL - COORDINATED AXAF/RXTE OBSERVATIONS OF NGC 3783
 04/27/1998 - 11/30/1999 FY98: \$6,286 Total: \$6,286
Prin. Invest.: W N BRANDT
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7443 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8410**
INVESTIGATING MESOSCALE CONVECTIVE SYSTEMS & TROPICAL EASTERLY WAVES IN CENTRAL & WEST AFRICA USING
 06/12/1998 - 06/14/1999 FY98: \$46,000 Total: \$46,000
Prin. Invest.: G JENKINS, NONE
Tech. Officer: GSFC/O THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7547 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8411**
SATELLITE TRACKING AND RAINFALL ESTIMATION FOR SHORT-TERM, HEAVILY EXCITATING STORM EVENTS
 06/22/1998 - 06/30/2001 FY98: \$235,764 Total: \$235,764
Prin. Invest.: J L EVANS
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7646 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8412**
ONE YEAR FUNDING FOR 'TECTONIC CONTROLS ON LANDSCAPE DEVELOPMENT...'
 08/27/1998 - 08/31/1999 FY98: \$84,000 Total: \$84,000
Prin. Invest.: D BURBANK
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7617 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8413**
PROPOSAL TO DEVELOP AN EVALUATION PLAN OF NASA'S EARTH SCIENCE INFORMATION PARTNERS' (ESIP)
 08/27/1998 - 05/31/1999 FY98: \$156,000 Total: \$156,000
Prin. Invest.: A K GLASMEIER
Tech. Officer: GSFC/M MAIDEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 77:3 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8414**
A HARD X-RAY SURVEY OF RADIO-LOUD AGNS
 09/30/1998 - 06/30/1999 FY98: \$9,800 Total: \$9,800
Prin. Invest.: M V FILIPPENKO
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 8 1272 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8415**
GRAVITATIONAL EFFECT ON THE DEVELOPMENT OF LASER WELDPOL
AND SOLIDIFICATIONMICROSTRUCTURE
 05/09/1996 - 05/22/2000 FY98: \$75,000 Total: \$300,000
Prin. Invest.: J SINGH
Tech. Officer: MSFC/M VLASSE, MSFC/D R WOODARD
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1286 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8416**
JOVE RESEARCH
 01/21/1997 - 08/31/1999 FY98: \$6,034 Total: \$34,303
Prin. Invest.: G SUBRAMANIAM
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1321 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8417**
RESEARCH FOR ANTIPROTON TRAPPING FOR ADVANCED SPACE PRO-
PULSION APPLICATIONS
 01/29/1997 - 01/31/1998 FY98: -\$1 Total: \$49,999
Prin. Invest.: G A SMITH
Tech. Officer: MSFC/W J EMRICH, JR.
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 8 1364 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8418**
R/S "FURTHER STUDIES OF SOME SPACESHUTTLE TRIBOLOGICAL PROB-
LEMS"
 05/15/1997 - 06/30/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: L CHANG, NONE
Tech. Officer: MSFC/P B HALL, MSFC/T R JETT
CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1398 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8419**
COMBUSTION MEASUREMENTS IN MULTI-FUEL, THOTTLEABLE OMS
ENGINES
 08/01/1997 - 08/31/1998 FY98: \$226,291 Total: \$301,291
Prin. Invest.: W E ANDERSON
Tech. Officer: MSFC/H TRINH
CASE Category: 13 - PHYSICS

NAG 8 1452 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8420**
R/S GRAVITATIONAL EFFECTS ON DISTORTION IN SINTERING
 02/01/1998 - 01/31/2002 FY98: \$96,250 Total: \$96,250
Prin. Invest.: R M GERMAN
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1530 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8421**
NUMERICAL STUDY OF THE ROLE OF SHALLOW CONVECTION ON MOIS-
TURE TRANSPORT AND CLIMATE
 05/06/1998 - 04/30/2001 FY98: \$135,000 Total: \$135,000
Prin. Invest.: N L SEAMAN
Tech. Officer: MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 1356 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8422**
CENTER FOR SPACE PROPULSION ENGINEERING
 07/18/1988 - 12/31/1998 FY98: \$0 Total: \$8,940,743
Prin. Invest.: C L MERKLE
Tech. Officer: HQ/E E VANLANDINGHAM
CASE Category: 49 - ENGINEERING, OTHER

NAGW 2120 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8423**
MULTI WAVELENGTH AND STATISTICAL RESEARCH IN SPACE ASRTO-
PHYSICS
 06/13/1990 - 06/30/1997 FY98: -\$3,722 Total: \$687,297
Prin. Invest.: E D FEIGELSON
Tech. Officer: HQ/G S KUTTER, HQ/G R RIEGLER
CASE Category: 11 - ASTRONOMY

NAGW 2686 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8424**
/GLOBAL WATER CYCLE: EXTENSION ACROSS THE EARTH SCIENCES
 08/02/1991 - 08/31/1997 FY98: \$0 Total: \$9,009,889
Prin. Invest.: E J BARRON
Tech. Officer: HQ/J C DODGE, HQ/W S WILSON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 3159 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8425**
A DETAILED INVESTIGATION INTO THE USE OF PLANETARY NEBULAE AS
STANDARD CANDLES
 08/10/1992 - 06/30/1997 FY98: -\$494 Total: \$278,709
Prin. Invest.: R CIARDULLO
Tech. Officer: HQ/G R RIEGLER
CASE Category: 11 - ASTRONOMY

NAGW 3171 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8426**
ADVANCED SPECTRUM MODELLING OF ACCRETION DISKS FOR CLOSE
BINARY STARS
 08/14/1992 - 09/30/1997 FY98: -\$548 Total: \$371,187
Prin. Invest.: R WADE
Tech. Officer: HQ/G R RIEGLER
CASE Category: 11 - ASTRONOMY

NAGW 3333 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8427**
MECHANISM OF DIFFERENTIAL GROWTH DURINGGRAVITROPSIM
 01/15/1993 - 05/31/1997 FY98: \$0 Total: \$298,711
Prin. Invest.: D J COSGROVE
Tech. Officer: HQ/T W HALSTEAD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 3405 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8428**
PLANETS AROUND NEUTRON STARS
 02/16/1993 - 09/30/1997 FY98: \$0 Total: \$220,000
Prin. Invest.: A WOLSZCZAN
Tech. Officer: HQ/J A NUTH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3415 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8429**
INFRARED SPECTROSCOPY OF JUPITER AND SATURN
 03/09/1993 - 06/30/1997 FY98: -\$62,746 Total: \$294,921
Prin. Invest.: R F KNACKE
Tech. Officer: HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NAGW 3571 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8430**
THE THEORY OF QSO ABSORPTION LINE SYSTEMS
 04/29/1993 - 12/31/1996 FY98: -\$398 Total: \$169,101
Prin. Invest.: J C CHARLTON
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 4124 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8431**
SPATIAL DISTRIBUTION OF CARBON MONOXIDE AND OTHER TRACE MINERALS
 08/30/1994 - 08/31/1997 FY98: \$0 Total: \$242,105
Prin. Invest.: R KNACKE
Tech. Officer: HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NAGW 4250 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8432**
A REMOTELY SENSED INDEX OF DEFORESTATION/URBANIZATION FOR USE IN CLIMATE MODELS
 01/20/1995 - 12/31/1997 FY98: \$0 Total: \$231,755
Prin. Invest.: T N CARLSON
Tech. Officer: HQ/M Y WEI, HQ/J S THEON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4401 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8433**
SOIL MOISTURE SUBSURFACE STORAGE AND RUNOFF AS A LOW DIMENSIONAL SYSTEM
 04/20/1995 - 02/28/1998 FY98: \$0 Total: \$224,000
Prin. Invest.: C J DUFFY, J P CUSMANO, J A LYNCH
Tech. Officer: HQ/M Y WEI, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4421 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8434**
THE BIOMECHANICS OF EXERCISE COUNTERMEASURES
 04/17/1995 - 02/14/1998 FY98: -\$9 Total: \$196,654
Prin. Invest.: P R CAVANAGH
Tech. Officer: HQ/F SULZMAN
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4839 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8435**
FACILITATED BLOOD PRESSURE CONTROL/SKIN COOLING: AUTONOMECH
 11/22/1995 - 07/31/1997 FY98: -\$16,501 Total: \$94,053
Prin. Invest.: J A PAWELCZYK
Tech. Officer: HQ/V SCHNEIDER
CASE Category: 56 - MEDICAL

NAGW 5057 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8436**
DEVELOPMENT OF NANOTECH SENSORS FOR SPACE APPLICATIONS: AN INSITU-TRIM-ENTED FALLING SPHERE FOR THE MEASUREMENT OF SENSITIVITY
 05/16/1996 - 05/31/1997 FY98: \$0 Total: \$64,087
Prin. Invest.: C L CROSKEY
Tech. Officer: HQ/M M MELLOTT, HQ/G L WITHBROE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 5162 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8437**
LAND-USE IN AMAZONIA CONTRIBUTION TO A GIS DATABASE
 09/09/1996 - 08/31/1997 FY98: -\$92 Total: \$49,908
Prin. Invest.: C UHL, D NEPSTAD
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 5184 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8438**
INVESTIGATION OF ISOTOPIC EVIDENCE FOR ACTIVE PLANKTONIC BIOTA IN PRECAMBRIAN
 09/25/1996 - 06/30/1997 FY98: \$0 Total: \$9,460
Prin. Invest.: L R KUMP
Tech. Officer: HQ/M MEYER, HQ/H C BRINTON
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 5254 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8439**
SPACE-TIME SCALING OF WATER TRANSFERS BETWEEN THE LAND SURFACE AND THE LOWER ATMOSPHERE
 11/07/1996 - 12/31/1997 FY98: \$0 Total: \$76,447
Prin. Invest.: A P BARROS
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG10 187 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8440**
IMPROVING LIGHTNING FORECASTS FOR THE SPACE PROGRAM
 03/26/1996 - 09/30/1998 FY98: \$32,850 Total: \$73,400
Prin. Invest.: G S FORBES, S HERRART, NONE
Tech. Officer: KSC/L MAIER, KSC/J MADURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG10 192 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8441**
ENVIRONMENTALLY ACCEPTABLE REPLACEMENT FOR LIX CLEANING SOLVENTS
 04/23/1996 - 12/31/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: W E ANDERSON
Tech. Officer: KSC/C E MCCASKEY
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG10 195 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8442**
STUDY OF GRAVITY EFFECTS ON SEEDLING MORPHOGENESIS
 01/28/1997 - 09/30/1998 FY98: \$20,000 Total: \$144,356
Prin. Invest.: D J COSGROVE
Tech. Officer: KSC/W M KNOTT
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 53187 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8443**
DESIGN AND DEVELOPMENT OF DIGITAL PROCESSING UNIT
 10/01/1991 - 09/30/1998 FY98: \$0 Total: \$937,600
Prin. Invest.: F CORDORA
Tech. Officer: GSFC/R DONNELLY
CASE Category: 42 - ASTRONAUTICAL ENGR

NAS 83852 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8444**
AXAF CCD IMAGING SPECTROMETER
 06/27/1991 - 11/30/1999 FY98: \$825,000 Total: \$5,240,000
Prin. Invest.: G P GARMERE
Tech. Officer: MSFC/N B CUMINGS
CASE Category: 11 - ASTRONOMY

NAS 84090 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8445**
R/S EXPERIMENTAL & ANALYTICAL MODELING OF THE ROCKET EJECTOR MODEL
 09/04/1991 - 02/15/1999 FY98: \$166,542 Total: \$600,000
Prin. Invest.: C MERKLE, R SANTORO
Tech. Officer: MSFC/J HUETER/J TURNER
CASE Category: 41 - AERONAUTICAL ENGR

NAS 919573 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8446**
MISSION SUPPORT SERVICES OF DR JAMES PAWELCZYK
 09/30/1996 - 07/03/1998 FY98: \$96,728 Total: \$371,728
Prin. Invest.: D A PAWELCZYK
Tech. Officer: JSC/K E NEWKIRK
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 1 249 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8447**
DAMAGE MONITORING AND LIFE EXTENDING CONTROL OF AI AIRCRAFT STRUCTURES
 01/17/1997 - 01/16/1999 FY98: \$61,350 Total: \$121,909
Prin. Invest.: A RAY
Tech. Officer: LARC/S M JOSHI
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 300 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8448**
HOX MEASUREMENTS IN PEM TROPOSPHERIC B WITH THE AIRBORNE TROPOSPHERIC HYDROGEN OXIDES SENSOR
 07/07/1998 - 05/31/2001 FY98: \$322,000 Total: \$322,000
Prin. Invest.: W H BRUNE
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 916 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8449**
A VISION-BASED OBSTACLE DETECTION SYSTEM FOR AIRCRAFT NAVIGATION
 07/25/1995 - 02/28/1998 FY98: \$0 Total: \$217,408
Prin. Invest.: R KASTURI, O CAMPS
Tech. Officer: ARC/A H NULL, ARC/A J AHUMADA
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 943 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8450**
PENN STATE ROTORCRAFT CENTER OF EXCELLENCE
 02/26/1996 - 12/31/1998 FY98: \$380,776 Total: \$1,197,574
Prin. Invest.: F C SMITH, L N LONG
Tech. Officer: ARC/Y H YU, ARC/J M DAVIS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 1057 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8451**
CREATING THE PENN STATE ASTROBIOLOGY RESEARCH CENTER
 09/17/1998 - 06/30/2003 FY98: \$315,000 Total: \$315,000
Prin. Invest.: H OHMOTO
Tech. Officer: ARC/P PILEWSKIE, ARC/R DEPICE
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 3 481 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8452**
INELASTIC SURFACES FOR METAL MATRIX COMPOSITES UNDER AXIAL TORSIONAL LOADING AT ELEVATED TEMPERATURE
 07/25/1996 - 11/30/1997 FY98: \$0 Total: \$70,063
Prin. Invest.: C J LISSENSEN
Tech. Officer: LERC/B A LERCH, LERC/S M ARNOLD
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 597 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8453**
MULTIAXIAL DEFORMATION STUDY OF HIGH TEMPERATURE METALLIC MATERIALS
 01/28/1998 - 11/30/2000 FY98: \$79,000 Total: \$79,000
Prin. Invest.: C J LISSENSEN
Tech. Officer: LERC/B A LERCH, LERC/R J ELLIS
CASE Category: 46 - MECHANICAL ENGR

NCC 8 46 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8454**
TRIPROPELLANT COMBUSTION AND OXYGEN RICH ROCKET COMBUSTOR TECHNOLOGIES
 03/15/1996 - 06/30/1998 FY98: \$0 Total: \$1,788,420
Prin. Invest.: R J SANTORO
Tech. Officer: MSFC/H P TRINH
CASE Category: 41 - AERONAUTICAL ENGR

NCC 8 109 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8455**
CONTROL OF MIXING AND COMBUSTION IN COMBINED CYCLE ENGINES
 06/06/1996 - 08/31/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: C L MERKLE
Tech. Officer: GSFC/J HOWELL
CASE Category: 41 - AERONAUTICAL ENGR

NCC 8 110 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8456**
RS/A FOCUSED SYSTEM CONCEPT DEFINITION STUDY
 07/25/1996 - 09/30/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: R J SANTORO
Tech. Officer: MSFC/J T HOWELL
CASE Category: 41 - AERONAUTICAL ENGR

NGT 10034 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8457**
USERC GRADUATE STUDENT ASSISTANTSHIPS
 01/09/1995 - 12/31/1998 FY98: \$0 Total: \$940,914
Prin. Invest.: C MERKLE
Tech. Officer: HQ/V BITTINGER
CASE Category: 49 - ENGINEERING, OTHER

NGT 30280 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8458**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/02/1994 - 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: D LAMB
Tech. Officer: HQ/J S THEON, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30314 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8459**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/01/1995 - 08/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: W H BRUNE
Tech. Officer: HQ/R A SCHIFFER, HQ/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 40002 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8460**
NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM
 09/28/1989 - 01/31/1998 FY98: \$0 Total: \$2,880,044
Prin. Invest.: R DEVON
Tech. Officer: HQ/L T KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51016 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8461**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/23/1993 - 06/30/1997 FY98: -\$92 Total: \$65,908
Prin. Invest.: M K HEID
Tech. Officer: HQ/D V GALLAWAY
CASE Category: 21 - MATHEMATICS

NGT 51125 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8462**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/07/1993 - 09/30/1997 FY98: -\$1,473 Total: \$64,527
Prin. Invest.: D BURROWS
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 - PHYSICS

NGT 51226 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8463**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/16/1994 - 08/15/1997 FY98: -\$1,880 Total: \$42,120
Prin. Invest.: C A BERNECKER
Tech. Officer: KSC/W CAMP
CASE Category: 49 - ENGINEERING, OTHER

NGT 51406 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8464**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/07/1995 - 07/31/1997 FY98: -\$13 Total: \$43,987
Prin. Invest.: J E NEFF
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 - PHYSICS

NGT 51638 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8465**
GRAD STUDENT RESEARCH PROGRAM
 08/15/1996 - 10/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J CHARLTON
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 - ASTRONOMY

NGT 51648 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8466**
GRAD STUD RES PROG
 08/05/1996 - 09/30/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: C CROSKY
Tech. Officer: HQ/D HOLLAND
CASE Category: 45 - ELECTRICAL ENGR

NGT 51683 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8467**
GRAD STUD RES PROG
 08/02/1996 - 07/31/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: P WALKER
Tech. Officer: HQ/G LESANE
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 1 52109 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8468**
GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 06/15/1995 - 06/30/1998 FY98: \$12,001 Total: \$66,001
Prin. Invest.: E C SMITH, A T HOWARD
Tech. Officer: LARC/M W NIXON
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52166 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8469**
GRADUATE STUDENT RESEARCHERS PROGRAM
 05/22/1997 - 06/30/1999 FY98: \$33,000 Total: \$44,000
Prin. Invest.: D B BAKER
Tech. Officer: LARC/J B MALONE, LARC/C V ECKSTROM
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52191 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8470**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/20/1998 - 06/30/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: P K MCLAUGHLIN
Tech. Officer: LARC/J M SEINER, LARC/B J JANSEN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 67 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8471**
GSRP TRAINING GRANT FOR BECKY J. REIFENSTAHL. TITLE: AN INDICATOR OF THE STATE OF ENSO APPLIED TO
 05/28/1998 - 08/14/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: A M CARLETON
Tech. Officer: GSFC/G SOFFEN
CASE Category: 11 - ASTRONOMY

NGT 5 30060 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8472**
IMPROVING SHORT-TERM QUANTITATIVE PRECIPITATION FOR RECASTING IN MOISTENOUS REGIONS
 10/18/1997 - 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: A BARROS
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 31066 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8473**
GLOBAL CHANGE FELLOWSHIP PRGM: ATMOSPHERIC OXIDATION OF THE HYDROXYL RADICAL AND OTHER TRACE GAS SPECIES
 09/09/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: W BRUNE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30139 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8474**
STUDIES OF OH AND HO2 IN THE PRESENCE OF CIRRUS CLOUDS NEAR THE TROPOPAUSE
 08/27/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: BRUNES, W SIMPAS
Tech. Officer: HQ/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 31171 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8475**
INTEGRATED SATELLITE, MODEL, AND FIELD-BASED STUDIES OF CONTROLS ON THE EXTENT OF SURFACE MELTING I
 09/04/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R B ALLEY, B DAS
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40302 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8476**
GLOBE TEACHER TRAINING WORKSHOP/PENNSYLVANIA SPACE
 01/30/1997 - 12/31/1997 FY98: \$10,000 Total: \$89,986
Prin. Invest.: R F DEVON
Tech. Officer: GSFC/L OSTENDORF
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40164 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8477**
SUPPORT TO PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.
 02/25/1997 - 01/31/1999 FY98: \$492,500 Total: \$880,000
Prin. Invest.: R DEVON
Tech. Officer: HQ/J DASCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50149 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8478**
THE THREE DIMENSIONAL STRUCTURE OF THE HOT INTERSTELLAR
 07/17/1997 - 08/14/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: D BURROWS
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50112 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8479**
GRADUATE STUDENT RESEARCH PROGRAM: STUDENT NAME:
 09/04/1997 - 08/14/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: C CROSKY
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50113 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8480**
GRADUATE STUDENT RESEARCHERS PROGRAM - STUDENT: E
 09/04/1997 - 07/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: P WALKER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52841 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8488**
R/S "GRADUATE STUDENT RESEARCH PROGRAM FELLOWSHIP"
 07/29/1997 - 09/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D A SANTAVICCA
Tech. Officer: MSFC/J F DOWDY
CASE Category: 46 - MECHANICAL ENGR

NGT 5 50120 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8481**
PLANETARY HABITABILITY
 09/10/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J F KASTING
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52856 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8489**
ADVANCED SPACE PROPULSION USING ANTIMATTER
 07/01/1998 - 08/21/2000 FY98: \$22,000 Total: \$22,000
Prin. Invest.: G A SMITH
Tech. Officer: MSFC/J F DOWDY
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 50147 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8482**
**AN INVESTIGATION OF COMPOSTING PLANT AND HUMAN WASTE LOGICAL
 LIFE SUPPORT SYSTEM (CELSS)**
 09/11/1997 - 07/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: S MCCLINTOCK
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 6238 TEMPLE UNIVERSITY **8490**
**016 UTILIZATION OF NEURAL NETWORK COMPUTING FOR COULT DIAG-
 NOSIS.**
 09/15/1997 - 03/14/1999 FY98: \$0 Total: \$49,590
Prin. Invest.: S K BISWAS
Tech. Officer: GSFC/B C DRAKE
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 5 50178 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8483**
**AN INVESTIGATION OF CARBON DIOXIDE FLUX MEASUREMENTS IN VOL-
 CANIC & GEOTHERMAL SYSTEMS/GSRP: WERNER C**
 10/09/1997 - 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: S BRANTLEY
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTINTERDISCIPL, OTHER

NAG 9 1023 THOMAS JEFFERSON UNIVERSITY **8491**
FACTORS MODULATING RADIATION INDUCED G2-DELAYS
 06/15/1998 - 06/30/1999 FY98: \$60,000 Total: \$60,000
Prin. Invest.: C ILIAKIS
Tech. Officer: JSC/F A GUGINOTTA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 8 52800 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8484**
GRADUATE STUDENT RESEARCHERS
 07/28/1995 - 12/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: A KULKARNI, J SINGH
Tech. Officer: MSFC/B N BHAT
CASE Category: 46 - MECHANICAL ENGR

NAG 2 1245 UNIVERSITY OF PENNSYLVANIA **8492**
VIRTUAL INTEGRATION FOR AUTONOMOUS MICRO ROBOTS
 08/10/1998 - 07/31/1999 FY98: \$19,900 Total: \$19,900
Prin. Invest.: K A BOAHEN
Tech. Officer: ARC/S F ZORNETZER
CASE Category: 46 - MECHANICAL ENGR

NGT 8 52813 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8485**
GRAD STUDENT RESEARCHERS PROGRAM
 07/25/1996 - 06/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: M C SHOEMAKER
Tech. Officer: MSFC/F SIX
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1858 UNIVERSITY OF PENNSYLVANIA **8493**
PHYSICS OF COLLOIDS IN SPACE
 05/10/1996 - 06/24/1997 FY98: -\$1 Total: \$498,599
Prin. Invest.: D WEITZ, P N PUSEY
Tech. Officer: LERC/B S SINGH
CASE Category: 13 - PHYSICS

NGT 8 52821 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8486**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/31/1996 - 07/01/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: M G SCHMIDT
Tech. Officer: MSFC/G YOUNG
CASE Category: 45 - ELECTRICAL ENGR

NAG 3 2058 UNIVERSITY OF PENNSYLVANIA **8494**
**PHYSICS OF COLLOIDS IN SPACE COMBUSTION OF UNCONFINED DROP-
 LET CLUSTERS IN MICRO**
 07/30/1997 - 06/24/2002 FY98: \$222,000 Total: \$433,000
Prin. Invest.: D A WEITZ, P N PUSEY
Tech. Officer: LERC/B S SINGH
CASE Category: 13 - PHYSICS

NGT 8 52829 PENNSYLVANIA STATE UNIV. - UNIV. PARK **8487**
GRAD STUDENT RESEARCHERS PROGRAM FOR GARRY ESTEP
 09/25/1996 - 06/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: M K LEHMAN
Tech. Officer: MSFC/K TUCKER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2111 UNIVERSITY OF PENNSYLVANIA **8495**
**ENGINEERING OF NOVEL BIOCOLLOID SUSPENSIONS ENGINEERING OF
 NOVEL BIOCOLLOID SUSPENSIONS**
 01/13/1998 - 12/31/1999 FY98: \$50,323 Total: \$50,323
Prin. Invest.: D A HAMMER
Tech. Officer: LERC/D GRIFFIN
CASE Category: 43 - CHEMICAL ENGR

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| <p>NAG 3 2172 UNIVERSITY OF PENNSYLVANIA 8496 COLLOIDAL ASSEMBLY IN ENTROPICALLY DRIVEN LOW-VOLU ME-FRAC- TION BINARY PARTICLE SUSPENSION 06/08/1998 – 02/28/2002 FY98: \$94,491 Total: \$94,491 <i>Prin. Invest.:</i> A G YODH <i>Tech. Officer:</i> LERC/R A WILKINSEN CASE Category: 13 – PHYSICS</p> | <p>NAG V 3628 UNIVERSITY OF PENNSYLVANIA 8504 ENVIRONMENTAL BIOMEDICAL RESEARCH DATA CENTER 06/03/1993 – 11/30/1998 FY98: \$0 Total: \$705,579 <i>Prin. Invest.:</i> C J LAMBERTSEN <i>Tech. Officer:</i> HQ/R J WHITE CASE Category: 56 – MEDICL</p> |
| <p>NAG 5 3990 UNIVERSITY OF PENNSYLVANIA 8497 PERFORMANCE ASSESSMENT USING DYNAMIC STIMULATION A ANALYSIS FOR IVA AND EVA 02/26/1997 – 02/28/1999 FY98: \$207,700 Total: \$407,700 <i>Prin. Invest.:</i> N I BADLER <i>Tech. Officer:</i> GSFC/J ELLISON CASE Category: 59 – LIFE SCIENCE, OTHER</p> | <p>NAG V 4359 UNIVERSITY OF PENNSYLVANIA 8505 CO2- J2 INTERACTIONS IN EXTENSION OF TOLERANCE TO A CUTE HYPO- XIA 03/10/1995 – 03/31/1998 FY98: \$0 Total: \$240,000 <i>Prin. Invest.:</i> C J LAMBERTSEN <i>Tech. Officer:</i> HQ/F SULZMAN CASE Category: 59 – LIFE SCIENCE, OTHER</p> |
| <p>NAG 5 4274 UNIVERSITY OF PENNSYLVANIA 8498 ENVIRONMENTAL BIOMEDICAL RESEARCH DATA CENTER 04/04/1997 – 11/30/1998 FY98: \$196,200 Total: \$392,400 <i>Prin. Invest.:</i> J LAMBERTSEN <i>Tech. Officer:</i> GSFC/L C CHAMBERS CASE Category: 59 – LIFE SCIENCE, OTHER</p> | <p>NGT 5 1393 UNIVERSITY OF PENNSYLVANIA 8506 GRADUATE STUDENT RESEARCHERS PROGRAM 07/18/1995 – 08/31/1998 FY98: \$0 Total: \$43,220 <i>Prin. Invest.:</i> N H FARHAT <i>Tech. Officer:</i> JPL/C HICKS CASE Category: 45 – ELECTRICAL ENGR</p> |
| <p>NAG 5 6200 UNIVERSITY OF PENNSYLVANIA 8499 CO2-02 INTERACTIONS IN EXTENSION OF TOLERANCE TO H 09/05/1997 – 03/31/1999 FY98: \$0 Total: \$120,000 <i>Prin. Invest.:</i> C LAMBERTSEN <i>Tech. Officer:</i> GSFC/L CHAMBERS CASE Category: 59 – LIFE SCIENCE, OTHER</p> | <p>NGT 5 30165 UNIVERSITY OF PENNSYLVANIA 8507 DEVELOPMENT OF A TIME RESOLVED VISIBLE AND ULTRAVIOLET SPEC- TROSCOPIC TECHNIQUE FOR MEASURING RES 08/31/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> H DAI, L LETENDRE <i>Tech. Officer:</i> GSFC/M Y WEI CASE Category: 39 – ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 8 1350 UNIVERSITY OF PENNSYLVANIA 8500 FOR RESEARCH ENTITLED: QUANTITATIVE ANALYSIS INTER ACTIONS DURING MEMBRANE PROTEIN CRYSTALLIZATION" 06/19/1997 – 11/30/1998 FY98: \$182,698 Total: \$283,698 <i>Prin. Invest.:</i> P LOLL <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> MSFC/R CROMISE, MSFC/C R TALLEY CASE Category: 19 – PHYSICAL SCIENCE, OTHER</p> | <p>NGT 5 30109 UNIVERSITY OF PENNSYLVANIA 8508 GRADUATE STUDENT RESEARCH PROGRAM – STUDENT: ANDR 09/11/1997 – 08/31/1998 FY98: \$0 Total: \$21,200 <i>Prin. Invest.:</i> N FARHAT <i>Tech. Officer:</i> HQ/A NURRIDIN CASE Category: 99 – MULTI INTERDISCIPL, OTHER</p> |
| <p>NAG 8 1483 UNIVERSITY OF PENNSYLVANIA 8501 SURFACE TRANSFORMATION OF REACTIVE GLASS IN A MICROGRAVITY ENVIRONMENT 02/03/1998 – 01/31/2002 FY98: \$73,333 Total: \$73,333 <i>Prin. Invest.:</i> P DUCHEYNE <i>Tech. Officer:</i> MSFC/C TALLEY CASE Category: 19 – PHYSICAL SCIENCE, OTHER</p> | <p>NGT 5 50210 UNIVERSITY OF PENNSYLVANIA 8509 THE INFLUENCE OF MOLECULAR PROPERTIES ON THE DYNAMICS OF CELL ADHESION 07/10/1998 – 06/30/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> D A HAMMER <i>Tech. Officer:</i> HQ/A NURRIDIN CASE Category: 43 – CHEMICAL ENGR</p> |
| <p>NAG 9 817 UNIVERSITY OF PENNSYLVANIA 8502 USE OF BIOACTIVE GLASS PARTICLES AS MICROCARRIERS IN MICROGRAVITY ENVIRONMENT 08/29/1995 – 09/17/1999 FY98: \$190,000 Total: \$730,000 <i>Prin. Invest.:</i> P S AYYASWAMY <i>Tech. Officer:</i> JSC/N PELLIS CASE Category: 59 – LIFE SCIENCE, OTHER</p> | <p>NAG 2 186 UNIVERSITY OF PITTSBURGH 8510 VESTIBULO-AUTONOMIC CIRCUITS 03/17/1998 – 09/30/1998 FY98: \$100,000 Total: \$100,000 <i>Prin. Invest.:</i> C D BALABAN, C A SCUDDER <i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)</p> |
| <p>NAG 9 1047 UNIVERSITY OF PENNSYLVANIA 8503 MEASURE UROPONTIN FROM SAMPLE COLLECTION 07/21/1998 – 07/30/1999 FY98: \$12,000 Total: \$12,000 <i>Prin. Invest.:</i> J R HOYER <i>Tech. Officer:</i> JSC/C SAMS CASE Category: 56 – MEDICL</p> | <p>NAG 3 1595 UNIVERSITY OF PITTSBURGH 8511 LOW TEMPERATURE LUMINESCENCE, RAMAN SCATTERING, AND RBS/ CHANNELING OF SIC CVD FILMS 01/18/1995 – 11/30/1997 FY98: \$0 Total: \$135,000 <i>Prin. Invest.:</i> W J CHOYKE <i>Tech. Officer:</i> LERC/J A POWELL CASE Category: 13 – PHYSICS</p> |

NAG 3 1833 UNIVERSITY OF PITTSBURGH **8512**
THE DISSOLUTION OF AN INTERFAC BETWEEN MISCIBLE LIQUIDS
 05/28/1996 – 05/27/2000 FY98: \$75,000 Total: \$175,000
Prin. Invest.: J V MAHER
Tech. Officer: LERC/R A WILKINSON
CASE Category: 13 – PHYSICS

NAG 3 2013 UNIVERSITY OF PITTSBURGH **8513**
WIDE-FREQUENCY & WIDE-TEMPERATURE RANGE CHARACTERIZATION OF SOFT MAGNETIC-MATERIALS
 02/24/1997 – 08/30/1998 FY98: \$0 Total: \$50,413
Prin. Invest.: W R WIESERMAN
Tech. Officer: LERC/G E SCHWARZE
CASE Category: 45 – ELECTRICAL ENGR

NAG 3 2132 UNIVERSITY OF PITTSBURGH **8514**
SMALL – SCALE STRUCTURE OF TURBULENCE SMALL STRUCTURE OF TURBULENCE
 02/27/1998 – 01/20/2000 FY98: \$35,000 Total: \$35,000
Prin. Invest.: W GOLDBURG
Tech. Officer: LERC/R SKARCH
CASE Category: 13 – PHYSICS

NAG 3 2149 UNIVERSITY OF PITTSBURGH **8515**
SPECTROSCOPY STUDIES OF SILICON CARBIDE FOR HIGH POWERED APPLICATIONS
 04/02/1998 – 12/03/1998 FY98: \$60,000 Total: \$60,000
Prin. Invest.: W J CHOYKE, R P DEVATY
Tech. Officer: LERC/J A POWELL
CASE Category: 13 – PHYSICS

NAG 5 661 UNIVERSITY OF PITTSBURGH **8516**
SUBORBITAL PROGRAM IN MAGNETOSPHERIC & IONOSPHERIC PHYSICS
 05/04/1990 – 06/30/1999 FY98: \$0 Total: \$1,006,693
Prin. Invest.: E C ZIPF
Tech. Officer: GSFC/W B JOHNSON, GSFC/R H PLESS
CASE Category: 13 – PHYSICS

NAG 5 3642 UNIVERSITY OF PITTSBURGH **8517**
GEOLOGIC MAPPING OF REULL VALLIS, MARS
 02/13/1997 – 09/30/1998 FY98: \$30,700 Total: \$50,500
Prin. Invest.: D A CROWN
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3723 UNIVERSITY OF PITTSBURGH **8518**
PHOTOMETRIC ANALYSIS OF SPACECRAFT PLANETARY IMAGE
 02/12/1997 – 10/31/1998 FY98: \$77,348 Total: \$149,707
Prin. Invest.: S W HAPKE
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4037 UNIVERSITY OF PITTSBURGH **8519**
MODELS FOR THE EMPLACEMENT OF LAVA FLOWS: STYLES ON MARS
 02/27/1997 – 02/28/1999 FY98: \$47,700 Total: \$95,400
Prin. Invest.: D A CROWN
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4116 UNIVERSITY OF PITTSBURGH **8520**
ELECTRON-ION RECOMBINATION PROCESSES RELATING TO P
 03/03/1997 – 12/31/1998 FY98: \$102,900 Total: \$215,900
Prin. Invest.: D JOHNSON
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4288 UNIVERSITY OF PITTSBURGH **8521**
ALLEGHENY OBSERVATORY SEARCH FOR PLANETARY SYSTEMS
 04/15/1997 – 12/31/1998 FY98: \$66,667 Total: \$196,667
Prin. Invest.: D D GATEWOOD
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4848 UNIVERSITY OF PITTSBURGH **8522**
KECK MAP DYNAMICAL CHARACTERIZATION OF NEIGHBORING
 09/05/1997 – 06/30/1999 FY98: \$85,994 Total: \$194,413
Prin. Invest.: D GATEWOOD
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 6164 UNIVERSITY OF PITTSBURGH **8523**
A CROSS DISCIPLINARY LITERACY COURSE ON EARTH SYSTEMS IN THE 21ST CENTURY.
 08/27/1997 – 07/31/1999 FY98: \$27,029 Total: \$47,029
Prin. Invest.: A A PANAH
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6274 UNIVERSITY OF PITTSBURGH **8524**
GLOBAL HEALTH NETWORK (GHNET) PROJECT DEVELOPMENT
 08/29/1997 – 08/31/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: R LAPORTE
Tech. Officer: GSFC/C DOARN
CASE Category: 56 – MEDICAL

NAG 8 1073 UNIVERSITY OF PITTSBURGH **8525**
THE EXTENDED ATMOSPHERES OF WOLF-RAYET STARS
 04/01/1994 – 02/28/1997 FY98: \$0 Total: \$170,813
Prin. Invest.: R E SCHULTE-LADBECK
Tech. Officer: MSFC/J OWENS
CASE Category: 11 – ASTRONOMY

NAG 8 1360 UNIVERSITY OF PITTSBURGH **8526**
RESEARCH "USE OF NASA BIOREACTOR TO STUDY CELL CYCLE REGULATION"
 06/05/1997 – 11/29/2000 FY98: \$91,847 Total: \$234,639
Prin. Invest.: C TALLEY
Tech. Officer: MSFC/P VAUGHN
CASE Category: 99 – MULTIDISCIPLINARY, OTHER

NAG 9 835 UNIVERSITY OF PITTSBURGH **8527**
GROWTH, METABOLISM, AND DIFFERENTIATION OF MIP
 09/19/1995 – 09/17/1999 FY98: \$180,000 Total: \$760,000
Prin. Invest.: J M JESSUP
Tech. Officer: JSC/N PELLIS
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 9 1036 UNIVERSITY OF PITTSBURGH **8528**
SLEEPING SHORT
 06/19/1998 – 06/30/1999 FY98: \$57,000 Total: \$57,000
Prin. Invest.: T H MONK
Tech. Officer: JSC/T SCHLEGEL
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 1270 UNIVERSITY OF PITTSBURGH **8529**
SEARCH FOR PLANETARY SYSTEMS
 04/15/1988 – 05/31/1997 FY98: \$0 Total: \$974,986
Prin. Invest.: J P WEFEL
Tech. Officer: HQ/J H RAHE
CASE Category: 11 – ASTRONOMY

NAGW 1764 UNIVERSITY OF PITTSBURGH **8530**
ELECTRON ION RECOMBINATION AND ION MOLECULE REACTION PROCESS
 05/17/1989 – 09/30/1997 FY98: \$0 Total: \$732,644
Prin. Invest.: R JOHNSEN
Tech. Officer: HQ/J T BERGSTRALH
CASE Category: 11 – ASTRONOMY

NAGW 2060 UNIVERSITY OF PITTSBURGH **8531**
PHOTOMETRIC ANALYSIS OF SPACECRAFT PLANETARY IMAGES
 04/06/1990 – 10/31/1996 FY98: \$0 Total: \$453,900
Prin. Invest.: B HAPKE
Tech. Officer: HQ/T A MAXWELL
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 3828 UNIVERSITY OF PITTSBURGH **8532**
NAGW 3828/B UNIV OF PITTSBURGH "NON-LTE LINE BLANKETED MODEL ATMOSPHERES" 1/1/94 START
 12/09/1993 – 06/30/1997 FY98: \$860 Total: \$105,000
Prin. Invest.: D J HILLIER
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 – ASTRONOMY

NAGW 3842 UNIVERSITY OF PITTSBURGH **8533**
MODELS FOR THE EMPLACEMENT OF LAVA FLOWS: STYLES OF EFFUSIVE VOLCANISM ON MARS
 01/03/1994 – 06/30/1997 FY98: \$0 Total: \$143,118
Prin. Invest.: D CROWN
Tech. Officer: HQ/R J WILLIAMS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAS 9 18404 UNIVERSITY OF PITTSBURGH **8534**
DEFINITION PHASE FOR IML-2 EXPERIMENT "HUMAN SLEEP AND CIRCADIAN RHYTHM"
 11/02/1990 – 09/15/1997 FY98: \$24,562 Total: \$1,293,084
Prin. Invest.: T H MONK
Tech. Officer: JSC/J VILLARREAL
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAS 9 19407 UNIVERSITY OF PITTSBURGH **8535**
HUMAN CIRCADIAN RHYTHMS & SLEEP IN SPACE
 10/04/1995 – 01/31/1999 FY98: \$174,000 Total: \$379,000
Prin. Invest.: T H MONK
Tech. Officer: JSC/J VILLARREAL
CASE Category: 56 – MEDICAL

NCC 3 459 UNIVERSITY OF PITTSBURGH **8536**
CONTRIBUTIONS TO NASA SPACE MECHANISM PROGRAM
 03/27/1996 – 01/31/1997 FY98: -\$14,143 Total: \$0
Prin. Invest.: M M KHOWSARI
Tech. Officer: LERC/R L FUSARO
CASE Category: 46 – MECHANICAL ENGR

NGT 1 1348 UNIVERSITY OF PITTSBURGH **8537**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/24/1994 – 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: W L WE
Tech. Officer: HQ/G A LESANE
CASE Category: 13 – PHYSICS

NGT 1 132186 UNIVERSITY OF PITTSBURGH **8538**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 04/29/1998 – 04/30/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: W W CLARK, C HYDER
Tech. Officer: LARC/G C HORNER, LARC/L G HORTA
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 132188 UNIVERSITY OF PITTSBURGH **8539**
GRADUATE STUDENT RESEARCHERS PROGRAM
 04/29/1998 – 04/30/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: W CLARK, C WOOD
Tech. Officer: LARC/G C HORNER, LARC/L G HORTA
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 10019 UNIVERSITY OF PITTSBURGH **8540**
PROVIDING EARTH SYSTEMS SCIENCE APPLICATIONS ACCESS WIDE AREA HIGH SPEED NETWORKS
 10/14/1996 – 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: D TIPPER
Tech. Officer: GSFC/G ASRAR
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NGT 5 5 3029 UNIVERSITY OF PITTSBURGH **8541**
VESTIBULAR INFLUENCES ON SYMPATHETIC OUTFLOWS TO DORSAL BEDS
 09/06/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: B YATES
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 5 1174 UNIVERSITY OF PITTSBURGH **8542**
AN INVESTIGATION OF RAMAN SCATTERING IN SYMBIOTIC STARS (STUDENT – BIRRIEL, J.)
 05/22/1998 – 06/30/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R SCHULTE-LADBECK
Tech. Officer: HQ/A NURRIDIN
CASE Category: 11 – ASTRONOMY

NGT 5 5 1207 UNIVERSITY OF PITTSBURGH **8543**
TWO-DIMENSIONAL HYDRODYNAMICS IN SOAP FILMS UNDER GOING ELECTROMAGNETIC CONVECTION
 07/09/1998 – 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: X WU
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 – PHYSICS

NAG 5 980 VILLANOVA UNIVERSITY **8544**
SIMULTANEOUS IUE & MAGNETIC OBSERVATIONS OF A SELECTED YOUNG DWARF
 09/01/1987 - 03/31/1997 FY98: -\$1 Total: \$99,257
Prin. Invest.: C AMBRUSTER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2160 VILLANOVA UNIVERSITY **8545**
1) THE PAST, PRESENT AND FUTURE SUN: AN IUE INVESTIGATION OF SOLAR PROXIES 2) UV CHROMOSPHERIC ...
 12/31/1992 - 01/31/1999 FY98: \$0 Total: \$43,200
Prin. Invest.: E F GUINAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2278 VILLANOVA UNIVERSITY **8546**
EUV SPECTROSCOPY OF EXPOSED WD'S IN 3 CATAclysmic VARIABLES: PROBING ACCRETION PHYSICS FOR...
 05/26/1993 - 08/14/1997 FY98: \$0 Total: \$71,114
Prin. Invest.: E SION
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 2279 VILLANOVA UNIVERSITY **8547**
CORONAL SPECTROSCOPY AND OUTER ATMOSPHERIC MODELING OF ZERO-AGE-MAIN-SEQUENCE K DWARFS ...
 07/15/1993 - 10/31/1998 FY98: \$0 Total: \$154,868
Prin. Invest.: C W AMBRUSTER
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 2462 VILLANOVA UNIVERSITY **8548**
IUE OBSERVATIONS OF AN X-RAY ANOMALOUS A-TYPE GIANT
 01/11/1994 - 01/14/1999 FY98: \$0 Total: \$2,500
Prin. Invest.: J SIAH
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2494 VILLANOVA UNIVERSITY **8549**
EVOLUTION OF SOLAR CORONAL X-RAY EMISSION: ROSAT OBSERVATIONS OF SOLAR PROXIES
 02/03/1994 - 02/14/1998 FY98: \$0 Total: \$39,975
Prin. Invest.: E F GUINAN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2707 VILLANOVA UNIVERSITY **8550**
THE SUN IN TIME: THE HIGH-TEMPERATURE CORONAL STRUCTURE OF SOLAR TYPE STARS
 08/31/1994 - 03/14/1999 FY98: \$0 Total: \$53,191
Prin. Invest.: E GUINAN
Tech. Officer: GSFC/N E WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3136 VILLANOVA UNIVERSITY **8551**
EVOLUTION OF THE CORONAL STRUCTURE OF THE SUN IN TIME
 11/01/1995 - 11/14/1998 FY98: \$0 Total: \$52,646
Prin. Invest.: E F GUINAN
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 3221 VILLANOVA UNIVERSITY **8552**
SPACE SPECTROSCOPY OF THE WHITE DWARFS IN CATAclysmic VARIABLES: PROBES OF ACCRETION PROCESSES
 05/08/1996 - 03/31/1999 FY98: \$0 Total: \$82,200
Prin. Invest.: SION
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3539 VILLANOVA UNIVERSITY **8553**
THE PROPERTIES OF INTERSTELLAR DUST AND APPLICATIONS TO ASTROPHYSICAL PROBLEMS
 11/13/1996 - 08/31/1999 FY98: \$0 Total: \$105,000
Prin. Invest.: J CARDELLI
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4520 VILLANOVA UNIVERSITY **8554**
THE SUN IN TIME: ACTIVITY CYCLES OF THE YOUNG AND BETA HYDRI
 07/03/1997 - 06/30/1999 FY98: \$0 Total: \$3,300
Prin. Invest.: E GUINAN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6849 VILLANOVA UNIVERSITY **8555**
ORFEUS IMAPS MISSION SUPPORT
 01/12/1998 - 01/14/1999 FY98: \$36,560 Total: \$36,560
Prin. Invest.: U SOFIA
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 7113 VILLANOVA UNIVERSITY **8556**
DETERMINING THE PHYSICAL PROPERTIES OF THE MAIN SEQUENCE B STARS
 03/25/1998 - 03/31/1999 FY98: \$21,700 Total: \$21,700
Prin. Invest.: E FITZPATRICK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 6080 WEST CHESTER UNIV OF PA **8557**
WEST CHESTER UNIVERSITY CONCEPTS & PEDAGOGICAL
 08/27/1997 - 08/14/1998 FY98: \$0 Total: \$19,625
Prin. Invest.: R M BUSCH
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

RHODE ISLAND

NAG 1 1145 BROWN UNIVERSITY **8558**
MULTI-DIMENSIONAL HIGH ORDER ESSENTIALLY NON-OSCILLATORY FINITE DIFFERENCE METHODS IN GEN COORD
 05/23/1990 - 05/31/1998 FY98: \$0 Total: \$140,501
Prin. Invest.: C W SHU
Tech. Officer: LARC/H L ATKINS
CASE Category: 41 - AERONAUTICAL ENGR

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| NAG 1 1932 BROWN UNIVERSITY 8559 REGRESSION MODELS AND ALGORITHMS FOR AERODYNAMICS APPLICATIONS 05/30/1997 - 09/30/1998 FY98: \$30,001 Total: \$50,001 <i>Prin. Invest.:</i> A E PEARSON <i>Tech. Officer:</i> LARC/P C MURPHY CASE Category: 41 - AERONAUTICAL ENGR | NAG 5 3872 BROWN UNIVERSITY 8567 BROWNI REGIONAL PLANETARY DATA CENTER 02/14/1997 - 09/30/1998 FY98: \$71,035 Total: \$119,414 <i>Prin. Invest.:</i> P H SCHULTZ <i>Tech. Officer:</i> GSFC/P G ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 1 2070 BROWN UNIVERSITY 8560 HIGHER ORDER DISCONTINUOUS GALERKIN METHODS FOR CONVECTION DOMINATED PROBLEMS W/APPLIC TO AEROACOUSTICS 05/14/1998 - 11/30/1998 FY98: \$15,000 Total: \$15,000 <i>Prin. Invest.:</i> C SHU <i>Tech. Officer:</i> LARC/H L ATKINS CASE Category: 41 - AERONAUTICAL ENGR | NAG 5 3877 BROWN UNIVERSITY 8568 PLANETARY IMPACT PROCESSES 02/14/1997 - 09/30/1998 FY98: \$143,402 Total: \$278,402 <i>Prin. Invest.:</i> P H SCHULTZ <i>Tech. Officer:</i> GSFC/P G ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 3 1484 BROWN UNIVERSITY 8561 MIXING ENHANCEMENT IN HIGH SPEED JET FLOWS THROUGH NON-LINEAR MULTIPLE-FREQUENCY MODE INTERACTIONS 05/04/1993 - 07/31/1998 FY98: \$0 Total: \$220,200 <i>Prin. Invest.:</i> J T LIU <i>Tech. Officer:</i> LERC/M D DAHL CASE Category: 41 - AERONAUTICAL ENGR | NAG 5 1933 BROWN UNIVERSITY 8569 GEOLOGICAL MAPPING OF VENUS: ORIGIN OF BASINS AND STRATIGRAPHY 02/13/1997 - 02/14/1999 FY98: \$35,000 Total: \$78,750 <i>Prin. Invest.:</i> D W HEAD, III <i>Tech. Officer:</i> GSFC/P G ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 3 1927 BROWN UNIVERSITY 8562 DYNAMICS AND MORPHOLOGY OF SUPERFLUID HELIUM DROPS IN A MICROGRAVITY ENVIRONMENT 07/24/1996 - 07/24/2000 FY98: \$150,000 Total: \$350,000 <i>Prin. Invest.:</i> G M SEIDEL, H MARIS <i>Tech. Officer:</i> LERC/B S SINGH CASE Category: 13 - PHYSICS | NAG 5 4162 BROWN UNIVERSITY 8570 MINERALOGY OF THE MARTIAN SURFACE: CRUSTAL COMPOSITION PROCESSES 03/26/1997 - 02/28/1999 FY98: \$72,912 Total: \$143,312 <i>Prin. Invest.:</i> D F MUSTARD <i>Tech. Officer:</i> GSFC/P G ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 3 1929 BROWN UNIVERSITY 8563 KINETIC AND THERMODYNAMIC STUDIES OF MELTING-FREEZING OF HELIUM MICROGRAVITY 07/24/1996 - 07/24/2000 FY98: \$82,000 Total: \$190,000 <i>Prin. Invest.:</i> D ELBAUM, J M KOSTERLITZ <i>Tech. Officer:</i> LERC/B S SINGH CASE Category: 13 - PHYSICS | NAG 5 4231 BROWN UNIVERSITY 8571 DIKE EMPLACEMENT AND HYDROTHERMAL ENVIRONMENTS FOR SITES: CANDIDATES FOR RESOURCE REACTION ZONES AND 04/23/1997 - 03/31/1999 FY98: \$0 Total: \$38,471 <i>Prin. Invest.:</i> D HEAD, III <i>Tech. Officer:</i> GSFC/J BOYCE CASE Category: 11 - ASTRONOMY |
| NAG 3 2067 BROWN UNIVERSITY 8564 FEASIBILITY OF FLUID-DYNAMICALLY GENERATED LONGITUDINAL VORTICES IN VICINITY OF HIGH SPEED NOZZLE 08/15/1997 - 09/30/1997 FY98: \$0 Total: \$40,000 <i>Prin. Invest.:</i> J C LIU <i>Tech. Officer:</i> LERC/M D DAHL CASE Category: 41 - AERONAUTICAL ENGR | NAG 5 4103 BROWN UNIVERSITY 8572 MINERALOGY OF LUNAR MATERIALS FROM REFLECTANCE SPECTRA 04/12/1997 - 06/30/1999 FY98: \$32,083 Total: \$87,083 <i>Prin. Invest.:</i> D M PIETERS <i>Tech. Officer:</i> GSFC/D NAVA CASE Category: 11 - ASTRONOMY |
| NAG 5 3659 BROWN UNIVERSITY 8565 PLANETARY GEOPHYSICS AND TECTONICS 03/07/1997 - 10/31/1998 FY98: \$77,394 Total: \$152,094 <i>Prin. Invest.:</i> E PARMENTIER <i>Tech. Officer:</i> GSFC/P G ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE | NAG 5 4056 BROWN UNIVERSITY 8573 OPERATION OF TERRESTRIAL PLANETARY BODIES SCIENCE 05/02/1997 - 01/31/1999 FY98: \$0 Total: \$60,000 <i>Prin. Invest.:</i> D W HEAD <i>Tech. Officer:</i> GSFC/G VARSANI CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 5 3871 BROWN UNIVERSITY 8566 REFLECTANCE EXPERIMENT LABORATORY 02/14/1997 - 09/30/1998 FY98: \$101,805 Total: \$201,885 <i>Prin. Invest.:</i> C M PIETERS <i>Tech. Officer:</i> GSFC/P G ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE | NAG 5 4336 BROWN UNIVERSITY 8574 REMOTE SENSING INFO APPLIED TO GEOLOGICAL STUDIES 04/29/1997 - 12/31/1999 FY98: \$50,000 Total: \$130,000 <i>Prin. Invest.:</i> C M PIETERS <i>Tech. Officer:</i> GSFC/P G ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE |

NAG 5 4438 BROWN UNIVERSITY **8575**
EXPERIMENTAL STUDY OF LUNAR AND SNC MAGMAS: ROLE O
 04/23/1997 – 03/31/1999 FY98: \$25,667 Total: \$69,667
Prin. Invest.: D J RUTHERFORD
Tech. Officer: GSFC/J M BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4585 BROWN UNIVERSITY **8576**
**TECTONIC DEFORMATION PATTERNS ON VENUS: RELATION LITHO-
 SPHERIC PROCESSES AND EVOLUTION**
 05/20/1997 – 09/30/1998 FY98: \$75,000 Total: \$170,000
Prin. Invest.: J W HEAD, III
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4650 BROWN UNIVERSITY **8577**
EVOLUTION AND DEPTHS OF THE HIGH-TI MARE PICRITE G
 06/11/1997 – 04/30/1999 FY98: \$31,000 Total: \$92,754
Prin. Invest.: D C HESS
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4676 BROWN UNIVERSITY **8578**
MARS 94 PARTICIPATING SCIENTIST AND CO-INVESTIGATO
 06/05/1997 – 06/30/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: D W HEAD, III
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4723 BROWN UNIVERSITY **8579**
**PLANETARY VOLCANIC PROCESSES: SHALLOW MAGMA RESER
 DIVERSITY OF ERUPTION CONDITIONS**
 06/11/1997 – 09/30/1998 FY98: \$90,000 Total: \$180,000
Prin. Invest.: J W HEAD, III
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 5133 BROWN UNIVERSITY **8580**
A HIGH RESOLUTION X-RAY DETECTOR USING MAGNETIC BOLOMETERS
 03/12/1997 – 02/28/1999 FY98: \$125,000 Total: \$250,000
Prin. Invest.: G SEIDEL
Tech. Officer: GSFC/B FLOWERS
CASE Category: 13 – PHYSICS

NAG 5 6003 BROWN UNIVERSITY **8581**
THE DYNAMICS OF A SEMI-ARID REGION IN RESPONSE TO POLICY
 08/26/1997 – 12/31/1999 FY98: \$125,000 Total: \$315,000
Prin. Invest.: J MUSTARD
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 6144 BROWN UNIVERSITY **8582**
MARS OBSERVER LASER ALTIMETER (MOLA) PARTICIPATION
 08/19/1997 – 08/31/1999 FY98: \$130,000 Total: \$210,000
Prin. Invest.: J W HEAD
Tech. Officer: GSFC/D E SMITH
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6597 BROWN UNIVERSITY **8583**
A COMPUTER LEARNING CENTER FOR REMOTE SENSING AND GIS
 12/11/1997 – 10/31/1998 FY98: \$154,000 Total: \$154,000
Prin. Invest.: J MUSTARD
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 7082 BROWN UNIVERSITY **8584**
**AN ULTRASPECTROMETER (MEMUS) FOR PLANETARY SURFACE ANALY-
 SIS**
 03/10/1998 – 03/31/1999 FY98: \$94,703 Total: \$94,703
Prin. Invest.: P H SCHULTZ
Tech. Officer: GSFC/B CAMPBELL
CASE Category: 11 – ASTRONOMY

NAGW 748 BROWN UNIVERSITY **8585**
REFLECTANCE EXPERIMENT LAB
 05/01/1985 – 06/30/1997 FY98: \$0 Total: \$981,307
Prin. Invest.: C M PIETERS
Tech. Officer: HQ/J R UNDERWOOD, HQ/J M BOYCE
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 1873 BROWN UNIVERSITY **8586**
GEOLOGICAL PROCESSES ON PLANETS AND SATELLITES: T ECTONISM
 07/23/1990 – 06/30/1997 FY98: \$0 Total: \$535,059
Prin. Invest.: J W HEAD
Tech. Officer: HQ/T A MAXWELL
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 1928 BROWN UNIVERSITY **8587**
PLANETARY GEOPHYSICS AND TECTONICS
 01/05/1990 – 06/30/1997 FY98: \$0 Total: \$466,662
Prin. Invest.: E M PARMENTIER
Tech. Officer: HQ/TA MAXWELL
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 2500 BROWN UNIVERSITY **8588**
**PROBLEMS IN VOLCANOLOGY AND UNCONFORMABLE SURFACE
 DEPOSITS ON MARS**
 08/12/1991 – 06/30/1997 FY98: \$0 Total: \$239,422
Prin. Invest.: J HEAD
Tech. Officer: HQ/W L QUAAIDE
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 3613 BROWN UNIVERSITY **8589**
**EXPERIMENTAL STUDY OF CHEMICAL PHASE AND TEXTURAL EQUI-
 LIBRIUM OF HIGH TIO2 MARE BASALTS AND PERIDOTI**
 06/11/1993 – 06/30/1997 FY98: \$0 Total: \$251,709
Prin. Invest.: P HESS
Tech. Officer: HQ/RAHE
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 4896 BROWN UNIVERSITY **8590**
**CONSTRAINTS ON THE MAGNITUDE OF LATERAL MASS TRANSPORT ON
 THE MOON**
 01/30/1996 – 12/31/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: J F MUSTARD
Tech. Officer: HQ/J M BOYCE, HQ/J RAHE
CASE Category: 13 – PHYSICS

NAGW 5101 BROWN UNIVERSITY **8591**
IRON ABUNDANCE ACROSS THE LUNAR HIGHLANDS
 06/10/1996 - 06/30/1997 FY98: \$0 Total: \$25,000
Prin. Invest.: C E PIETERS
Tech. Officer: HQ/J BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG13 39 BROWN UNIVERSITY **8592**
RHODE ISLAND'S NARRAGANSETT BAY FROM SPACE: A PERSPECTIVE FOR THE 21ST CENTURY
 08/01/1996 - 09/16/1999 FY98: \$53,635 Total: \$411,684
Prin. Invest.: D MUSTARD
Tech. Officer: JSC/B DAVIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5213 BROWN UNIVERSITY **8593**
USER INTERFACE TECHNOLOGY TRANSFER TO NASA'S VIRTUAL WIND TUNNEL SYSTEM
 04/29/1997 - 03/31/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: A VAN DAM
Tech. Officer: ARC/M GERALD-YAMASAKI
CASE Category: 22 - COMPUTER SCIENCE

NCC13 98005 BROWN UNIVERSITY **8594**
BROWN UNIVERSITY AFFILIATED RESEARCH CENTER FOR THE NORTH-EAST
 09/15/1998 - 09/14/2001 FY98: \$50,000 Total: \$50,000
Prin. Invest.: J F MUSTARD
Tech. Officer: SSC/H CARR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51262 BROWN UNIVERSITY **8595**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/14/1994 - 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: G SEIDEL
Tech. Officer: HQ/A NURRUDDIN
CASE Category: 13 - PHYSICS

NGT 5 50001 BROWN UNIVERSITY **8596**
A SEARCH FOR SMALL ANGULAR SCALE ANISOTROPY IN THE COSMIC MICROWAVE BACKGROUND RADIATION
 09/09/1996 - 08/31/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: P TIMBIE, G WILSON
Tech. Officer: GSFC/G SOFFEN
CASE Category: 11 - ASTRONOMY

NGT 5 50108 BROWN UNIVERSITY **8597**
MORPHOLOGY-DEPENDENT RESONANCE TECHNIQUES FOR THE ED SUPERFLUID HELIUM DROPLETS
 09/06/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: SEIDEL
Tech. Officer: HQ/A NURRUDDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90014 BROWN UNIVERSITY **8598**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.
 02/03/1997 - 02/28/1999 FY98: \$212,500 Total: \$382,500
Prin. Invest.: P H SCHULTZ
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 8 BROWN UNIVERSITY **8599**
STUDIES OF REGIONAL PYROCLASTIC DEPOSITS
 07/03/ 996 - 07/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: J W HEAD, III
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 11 - ASTRONOMY

NAG 1 1225 UNIVERSITY OF RHODE ISLAND **8600**
CONCENTRATIONS OF MINERAL AEROSOL AND TRACE ELEMENTS IN ATMOSPHERE OF WESTERN PACIFIC AND RELATIONS
 02/27/ 991 - 02/25/1997 FY98: -\$82 Total: \$275,841
Prin. Invest.: R ARIMOTO, R A DUCE
Tech. Officer: LARC/B E ANDERSON, LARC/J M HOELL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1757 UNIVERSITY OF RHODE ISLAND **8601**
THE DISTRIBUTION OF HYDROGEN PEROXIDE, METHYLHYDROPEROXIDE, AND FORMALDEHYDE AND THEIR RELATIONS
 09/21/1995 - 03/31/1999 FY98: \$0 Total: \$475,969
Prin. Invest.: D HEIKES
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1108 UNIVERSITY OF RHODE ISLAND **8602**
HYDROGEN PEROXIDE, METHYLHYDROPEROXIDE, & FORMALDEHYDE MEASUREMENTS DURING SONEX, RELATIONSHIP TO..
 01/29/1997 - 12/31/1998 FY98: \$86,263 Total: \$265,412
Prin. Invest.: B HEIKES
Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 3 1428 UNIVERSITY OF RHODE ISLAND **8603**
HIGH TEMPERATURE THIN FILM STRAIN SENSORS BASED ON ALUMINUM NITRIDE
 01/14/1993 - 06/30/1997 FY98: -\$765 Total: \$239,235
Prin. Invest.: O J GREGORY, NONE
Tech. Officer: LERC/L C MARTIN
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1998 UNIVERSITY OF RHODE ISLAND **8604**
CERAMIC THIN FILM STRAIN SENSORS FOR USE AT HIGH TEMPERATURES
 12/01/1996 - 05/31/1999 FY98: \$60,000 Total: \$120,000
Prin. Invest.: O J GREGORY
Tech. Officer: LERC/L C MARTIN, LERC/W D WILLIAMS
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 2129 UNIVERSITY OF RHODE ISLAND **8605**
INVESTIGATION OF FLUID PHYSICS NEAR DYNAMIC CONTACT LINE-NUMERICAL SIMULATIONS AND EXPERIMENTS
 02/23/1998 - 12/31/1998 FY98: \$10,000 Total: \$10,000
Prin. Invest.: A BOSE
Tech. Officer: LERC/M M WEISLOGEL, LERC/B SINGH
CASE Category: 43 - CHEMICAL ENGR

NAG 5 3736 UNIVERSITY OF RHODE ISLAND **8606**
SURVEY OF OCEAN FRONTS WITH SST, ALTIMETER AND IN SITU MEASUREMENTS
 03/06/1997 - 09/30/1998 FY98: \$0 Total: \$126,000
Prin. Invest.: P CORNILLON
Tech. Officer: GSFC/B DOUGLAS
CASE Category: 33 - OCEANOGRAPHY

NAG 5 3895 UNIVERSITY OF RHODE ISLAND **8607**
MIDDLE SCHOOL TEACHER INSTITUTE ON GLOBAL CHANGE I OF A 2
YEAR GRANT REF: HQ GRANT NAGW 4632
 02/11/1997 - 06/30/1998 FY98: \$0 Total: \$70,296
Prin. Invest.: L CARTER
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 99 - MULTI INTERDISCIPL. OTHER

NAG 5 6077 UNIVERSITY OF RHODE ISLAND **8608**
PRODUCTION OF WESTERN N ATLANTIC FULL RESOLUTION S ST FIELDS
FROM THE AVHRR SENSOR
 10/24/1997 - 09/30/1999 FY98: \$124,000 Total: \$124,000
Prin. Invest.: D CONRILLON
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 33 - OCEANOGRAPHY

NAG 5 6320 UNIVERSITY OF RHODE ISLAND **8609**
PRODUCTION OF WESTERN NORTH ATLANTIC FULL RESOLUTION THE
AVHRR SENSOR
 09/11/1997 - 09/30/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: P CORNILLON
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6560 UNIVERSITY OF RHODE ISLAND **8610**
DETERMINATION OF OCEAN COLOR PROVINCES IN THE NORTH ATLANTIC
 10/27/1997 - 10/31/1999 FY98: \$195,082 Total: \$195,082
Prin. Invest.: P STEGMANN
Tech. Officer: GSFC/J YODER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6607 UNIVERSITY OF RHODE ISLAND **8611**
PREPARING STUDENTS, PRACTITIONERS AND RESEARCHERS FOR
OCEAN REMOTE SENSING IN THE TWENTY-FIRST CENTURY
 12/03/1997 - 11/30/1998 FY98: \$190,000 Total: \$190,000
Prin. Invest.: P CORNILLON
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6645 UNIVERSITY OF RHODE ISLAND **8612**
SATELLITE STUDIES OF PHYTOPLANKTON DYNAMICS AND PRODUCTIVITY
IN THE GLOBAL OCEAN AND IN OCEAN M
 12/01/1997 - 10/14/1998 FY98: \$179,379 Total: \$179,379
Prin. Invest.: J A YODER
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 1891 UNIVERSITY OF RHODE ISLAND **8613**
OCEAN COLOR STUDIES OF THE EASTERN ATLANTIC
 12/07/1989 - 09/30/1997 FY98: -\$1,210 Total: \$1,091,243
Prin. Invest.: J A YODER
Tech. Officer: HQ/M R LEWIS, HQ/W S WILSON
CASE Category: 33 - OCEANOGRAPHY

NAGW 3601 UNIVERSITY OF RHODE ISLAND **8614**
REMOTE SENSING OF MINERAL AEROSOLS AND THEIR IMPACT ON PHYTOPLANKTON PRODUCTION
 05/21/1993 - 05/01/1998 FY98: \$0 Total: \$249,603
Prin. Invest.: P STEGMANN, N TINDALE
Tech. Officer: HQ/R E MURPHY
CASE Category: 33 - OCEANOGRAPHY

NAGW 3890 UNIVERSITY OF RHODE ISLAND **8615**
UNIV RHODE ISLAND; DISTRIBUTED OCEANOGRAPHIC DATA SYSTEM
DEVELOPMENT: CLIENT SERVER DATA LOCATION
 03/09/1994 - 03/31/1997 FY98: \$0 Total: \$481,629
Prin. Invest.: P CORNILLON
Tech. Officer: HQ/G H MUCKLOW, HQ/J H BREDECAMP
CASE Category: 22 - COMPUTER SCIENCE

NAGW 4632 UNIVERSITY OF RHODE ISLAND **8616**
MIDDLE SCHOOL TEACHER INSTITUTE ON GLOBAL CHANGE ISSUES
 07/27/1995 - 06/30/1998 FY98: \$0 Total: \$79,703
Prin. Invest.: L M CARTER
Tech. Officer: HQ/M A PINE, HQ/D R NORTON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4764 UNIVERSITY OF RHODE ISLAND **8617**
PRODUCTION OF WESTERN ATLANTIC FULL RESOLUTION SST FIELDS
FROM THE AVHRR SENSOR
 10/05/1995 - 09/30/1997 FY98: -\$4,636 Total: \$170,683
Prin. Invest.: P COMILLON
Tech. Officer: HQ/E MAIDEN
CASE Category: 33 - OCEANOGRAPHY

NCC 1 302 UNIVERSITY OF RHODE ISLAND **8618**
HYDROGEN PEROXIDE, METHYDROPEROXIDE & FORMALDEHYDE
—THEIR RELATIONSHIP TO TROPOSPHERIC OXIDANT CHEM
 07/14/1998 - 06/30/2000 FY98: \$181,654 Total: \$181,654
Prin. Invest.: B HEIKES
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 123 UNIVERSITY OF RHODE ISLAND **8619**
SUPPORT FOR CEOS WORKING GROUP ON DATA CATALOG SUB GROUP
ACTIVITIES AS A NASA REPRESENTATIVE
 09/14/1995 - 09/14/1997 FY98: \$0 Total: \$60,000
Prin. Invest.: P CORNILLON, G MILKOWSKI
Tech. Officer: GSFC/Y ENLOE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 307 UNIVERSITY OF RHODE ISLAND **8620**
THE DISTRIBUTED OCEANOGRAPHIC DATA SYSTEM (DODS): A FRAMEWORK
FOR ACCESS TO SCIENTIFIC DATA IN THE EO
 04/27/1998 - 02/28/2001 FY98: \$492,300 Total: \$492,300
Prin. Invest.: P CORNILLON
Tech. Officer: GSFC/M MAIDEN
CASE Category: 33 - OCEANOGRAPHY

NGT 30307 UNIVERSITY OF RHODE ISLAND **8621**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/15/1995 - 08/31/1998 FY98: -\$5,051 Total: \$38,949
Prin. Invest.: Y A YODER
Tech. Officer: HQ/M BALTUCK, HQ/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

NGT 5 30088 UNIVERSITY OF RHODE ISLAND **8622**
"COMPARATIVE OCEANIC PHYTOPLANKTON ECOLOGY USING T
BASE"/EARTH SYSTEM SCIENCE FELLOWSHIP PROGRAM/CHA
 09/09/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J YODER
Tech. Officer: GSFC/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

SOUTH CAROLINA

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| NAG 2 1164 IDENTIFICATION & ISOLATION OF MICROGRAVITY RESPONSIVE CDNA'S 10/06/1997 - 09/30/1998 <i>Prin. Invest.:</i> L LOWE <i>Tech. Officer:</i> ARC/R E GRINDELAND, ARC/G S LEE <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR) | BENEDICT COLLEGE 8623 FY98: \$99,656 Total: \$99,656 | NAG 5 3353 DIGITAL RECEIVER AND ACCELERATED LEVEL ONE ARCHITECTURES FOR LOW COST SATELLITE TELEMETRY PRO 08/21/1995 - 08/31/1997 <i>Prin. Invest.:</i> W B LING, III <i>Tech. Officer:</i> GSFC/D J DAVIS, GSFC/T D BENNETT <i>CASE Category:</i> 45 - ELECTRICAL ENGR | CLEMSON UNIVERSITY - CLEMSON 8631 FY98: \$0 Total: \$134,521 |
| NAGW 4829 ANALYSIS OF HIPPARCOS DATA AND URSA MAJOR STREAM DATA 10/30/1995 - 08/31/1997 <i>Prin. Invest.:</i> S J ADELMAN <i>Tech. Officer:</i> HQ/R V STACHNIK, HQ/E J WEILER <i>CASE Category:</i> 11 - ASTRONOMY | CITADEL MILITARY COLLEGE OF S C 8624 FY98: \$0 Total: \$34,135 | NAG 5 3699 ANALYSIS OF COMPTON AND OSSE OBSERVATIONS OF SUPER 01/24/1997 - 01/31/1999 <i>Prin. Invest.:</i> M D LEISING <i>Tech. Officer:</i> GSFC/J P NORRIS <i>CASE Category:</i> 11 - ASTRONOMY | CLEMSON UNIVERSITY - CLEMSON 8632 FY98: \$19,999 Total: \$52,297 |
| NAG 1 1141 STIFFNESS TAILORING OF COMPOSITE PLATES FOR IMPROVED STABILITY AND STRENGTH UNDER COMBINED LOADING. 05/28/1990 - 08/31/1997 <i>Prin. Invest.:</i> S B BIGGERS <i>Tech. Officer:</i> LARC/M J SHUART, LARC/D R AMBUR <i>CASE Category:</i> 41 - AERONAUTICAL ENGR | CLEMSON UNIVERSITY - CLEMSON 8625 FY98: -\$1 Total: \$369,530 | NAG 5 3835 TRIO: AN OUT-OF-CORE PROGRAMMING ENVIRONMENT FOR T 02/10/1997 - 02/14/1999 <i>Prin. Invest.:</i> W E LIGON, III <i>Tech. Officer:</i> GSFC/C MOBARRY <i>CASE Category:</i> 22 - COMPUTER SCIENCE | CLEMSON UNIVERSITY - CLEMSON 8633 FY98: \$60,000 Total: \$131,678 |
| NAG 1 1634 LASER RADAR SENSOR DEVELOPMENT SIGNAL PROCESSING STUDIES 06/30/1994 - 07/20/1998 <i>Prin. Invest.:</i> E G BAXA <i>Tech. Officer:</i> LARC/L D STATON <i>CASE Category:</i> 45 - ELECTRICAL ENGR | CLEMSON UNIVERSITY - CLEMSON 8626 FY98: \$19,658 Total: \$268,057 | NAG 5 4329 ISOTOPIC ANOMALIES, EXTINGUISHED RADIOACTIVITY, AND CHEMICAL SOLIDS 04/07/1997 - 04/14/1999 <i>Prin. Invest.:</i> D D CLAYTON <i>Tech. Officer:</i> GSFC/D F NAVA <i>CASE Category:</i> 12 - CHEMISTRY | CLEMSON UNIVERSITY - CLEMSON 8634 FY98: \$26,000 Total: \$74,000 |
| NAG 2 1107 A LINUX WORKSTATION FOR HIGH-PERFORMANCE GRAPHICS: TASK I 01/23/1997 - 12/31/1998 <i>Prin. Invest.:</i> R M GEIST, J M WESTALL <i>Tech. Officer:</i> ARC/J R LEKASHMAN <i>CASE Category:</i> 22 - COMPUTER SCIENCE | CLEMSON UNIVERSITY - CLEMSON 8627 FY98: \$74,468 Total: \$108,143 | NAG 5 4341 NUCLEAR CLUES TO SOLAR SYSTEM ORIGIN 04/12/1997 - 01/31/1999 <i>Prin. Invest.:</i> P D CLAYTON <i>Tech. Officer:</i> GSFC/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY | CLEMSON UNIVERSITY - CLEMSON 8635 FY98: \$33,750 Total: \$78,750 |
| NAG 3 2046 THE COMPONENT PACKAGING PROBLEM, A VEHICLE FOR THE DEVELOPMENT OF MULTIDISCIPLINARY DESIGN & ANALYSIS 05/08/1997 - 12/15/1998 <i>Prin. Invest.:</i> G FADEL <i>Tech. Officer:</i> LERC/C C CHAMIS, LERC/P N MURTHY <i>CASE Category:</i> 41 - AERONAUTICAL ENGR | CLEMSON UNIVERSITY - CLEMSON 8628 FY98: \$0 Total: \$200,000 | NAG 5 4624 XTE OBSERVATION OF THE TYCHO SUPERNOVA REMNANT 05/21/1997 - 05/31/1998 <i>Prin. Invest.:</i> THE <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY | CLEMSON UNIVERSITY - CLEMSON 8636 FY98: \$0 Total: \$17,419 |
| NAG 5 1578 THE DIFFUSE GALACTIC GLOW 05/01/1991 - 11/14/1997 <i>Prin. Invest.:</i> D H HARTMANN <i>Tech. Officer:</i> GSFC/J P NORRIS, GSFC/D A KNIFFEN <i>CASE Category:</i> 11 - ASTRONOMY | CLEMSON UNIVERSITY - CLEMSON 8629 FY98: \$0 Total: \$259,775 | NAG 5 4703 THE HISTORY OF THE NUCLEI COMPRISING PLANETARY MATERIAL 06/11/1997 - 15/31/2001 <i>Prin. Invest.:</i> L S MEYER <i>Tech. Officer:</i> GSFC/D F NAVA <i>CASE Category:</i> 11 - ASTRONOMY | CLEMSON UNIVERSITY - CLEMSON 8637 FY98: \$14,444 Total: \$46,852 |
| NAG 5 2419 SOLAR MAXIMUM MISSION OBSERVATIONS OF GAMMA-RAY TRANSIENTS AND THE DIFFUSE GAMMA 11/06/1993 - 08/31/1998 <i>Prin. Invest.:</i> M LEISING <i>Tech. Officer:</i> GSFC/D WEST <i>CASE Category:</i> 11 - ASTRONOMY | CLEMSON UNIVERSITY - CLEMSON 8630 FY98: \$0 Total: \$116,282 | NAG 5 5034 SOUNDING ROCKET INVESTIGATIONS OF EDDY & MOLECULAR DIFFUSIVITIES IN THE MESOSPHERE/LOWER THERMOSPHERE 04/12/1995 - 03/31/1999 <i>Prin. Invest.:</i> M F LARSEN <i>Tech. Officer:</i> GSFC/R H PLESS <i>CASE Category:</i> 13 - PHYSICS | CLEMSON UNIVERSITY - CLEMSON 8638 FY98: \$0 Total: \$287,000 |

NAG 5 5043 CLEMSON UNIVERSITY - CLEMSON **8639**
NA TEMPERATURE LIDAR SUPPORT FOR THE PUERTO RICO II ROCKET
CAMPAIGN AT ARECIBO
 07/28/1995 - 06/30/1998 FY98: \$0 Total: \$108,099
Prin. Invest.: J W MERIWETHER
Tech. Officer: GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5085 CLEMSON UNIVERSITY - CLEMSON **8640**
ROCKET/RADAR INVESTIGATION OF LOWER IONOSPHERE ELECTRODY-
NAMICS ASSOCIATED WITH INTENSE MID-LATITU
 06/28/1996 - 05/31/1999 FY98: \$9,900 Total: \$95,900
Prin. Invest.: M F LARSEN
Tech. Officer: GSFC/L W GURKIN
CASE Category: 13 - PHYSICS

NAG 5 5186 CLEMSON UNIVERSITY - CLEMSON **8641**
COUPLING OF DYNAMICS IN AURORA FUNDING FOR FIRST YEAR OF
GRANT
 03/30/1998 - 12/31/1998 FY98: \$134,160 Total: \$134,160
Prin. Invest.: M F LARSEN
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6030 CLEMSON UNIVERSITY - CLEMSON **8642**
AN APPLICATION DEVELOPMENT FRAMEWORK FOR RECONFIGURABLE
COMPUTING SYSTEMS
 10/02/1997 - 09/30/1998 FY98: \$99,990 Total: \$99,990
Prin. Invest.: W B LIGON, III
Tech. Officer: GSFC/N SPECIALE
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6210 CLEMSON UNIVERSITY - CLEMSON **8643**
RECONFIGURABLE COMPUTING SYSTEMS FOR REGIONAL VALI APPLICA-
TIONS, CONTROL NUMBER GSFC5-3265
 08/06/1997 - 06/30/1999 FY98: \$50,000 Total: \$149,924
Prin. Invest.: D LIGON, III
Tech. Officer: GSFC/W CAMPBELL
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6892 CLEMSON UNIVERSITY - CLEMSON **8644**
GALACTIC RADIOACTIVE 44TI MAP AND SUPERNOVA RATE
 01/28/1998 - 01/31/1999 FY98: \$20,000 Total: \$20,000
Prin. Invest.: L THE
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 6922 CLEMSON UNIVERSITY - CLEMSON **8645**
SEARCHING BATSE DATA FOR COSMOLOGICAL FINGERPRINTS
 01/28/1998 - 01/31/1999 FY98: \$11,797 Total: \$11,797
Prin. Invest.: D H HARTMANN
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7488 CLEMSON UNIVERSITY - CLEMSON **8646**
REANALYZING 1809 KEV COMPTEL DATA IMPROVING ITS SENSITIVITY TO
EXTENDED EMISSION
 06/17/1998 - 06/30/1999 FY98: \$2,800 Total: \$2,800
Prin. Invest.: D HARTMANN
Tech. Officer: GSFC/J NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7570 CLEMSON UNIVERSITY - CLEMSON **8647**
COMPTEL AND OSSE OBSERVATIONS OF NEARBY SUPERNOVAE :
1994-1999
 07/15/1998 - 07/31/1999 FY98: \$19,999 Total: \$19,999
Prin. Invest.: M D LEISING
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 7592 CLEMSON UNIVERSITY - CLEMSON **8648**
INVESTIGATING THE FEASIBILITY OF, AND LIMITATIONS ASSOCIATED
WITH, RECOVERING GRAVITYWAVE PARAMETER
 07/07/1998 - 06/30/2000 FY98: \$79,214 Total: \$79,214
Prin. Invest.: M P HICKEY
Tech. Officer: GSFC/M MELLOTT
CASE Category: 13 - PHYSICS

NAGW 2305 CLEMSON UNIVERSITY - CLEMSON **8649**
NUCLEAR CLUES TO SOLAR SYSTEM ORIGINS
 12/06/1990 - 04/30/1997 FY98: -\$25,000 Total: \$174,694
Prin. Invest.: D D CLAYTON
Tech. Officer: HQ/J A NUTH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3480 CLEMSON UNIVERSITY - CLEMSON **8650**
THE HISTORY OF THE NUCLEI COMPRISING PLANETARY MATERIALS
 03/27/1992 - 09/30/1997 FY98: \$0 Total: \$130,495
Prin. Invest.: B MEYER
Tech. Officer: HQ/J BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 4546 CLEMSON UNIVERSITY - CLEMSON **8651**
ANALYSIS OF EQUATORIAL IONOSPHERIC TURBULENCE USING DE AND
SAN MARCO DATA
 06/30/1995 - 09/30/1997 FY98: \$0 Total: \$101,530
Prin. Invest.: D L HYSELL
Tech. Officer: HQ/J BOHLIN
CASE Category: 13 - PHYSICS

NAG 5 31750 CLEMSON UNIVERSITY - CLEMSON **8652**
PROTOFLIGHT MICRODOSIMETER
 07/01/1992 - 03/31/1997 FY98: \$0 Total: \$96,056
Prin. Invest.: P J MCNULTY
Tech. Officer: GSFC/E G STASSINOPOULOS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 283 CLEMSON UNIVERSITY - CLEMSON **8653**
MODELING & CHARACTERIZATION OF GEOMETRIC EFFECTS ON THE PER-
FORMANCE OF RAINBOW CERAMICS
 03/25/1998 - 03/31/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: R W SCHWARTZ, I BALLATO, E SKAAR
Tech. Officer: LARC/S A WISE
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 10008 CLEMSON UNIVERSITY - CLEMSON **8654**
MULTIDISCIPLINARY DESIGN AND ANALYSIS FELLOWSHIP PROGRAM
 10/07/1993 - 09/30/1997 FY98: \$0 Total: \$450,000
Prin. Invest.: G M FADEL
Tech. Officer: HQ/G S SEIDEL, HQ/J R FACEY
CASE Category: 41 - AERONAUTICAL ENGR

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| NGT 70386 CLEMSON UNIVERSITY - CLEMSON GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF) 08/26/1994 - 06/30/1998 FY98: \$0 Prin. Invest.: J PETERSON Tech. Officer: HQ/D RUSSELL CASE Category: 21 - MATHEMATICS | 8655 | NAG 5 1198 COLLEGE OF CHARLESTON EXPLOING THE SOLAR SYSTEM IN THE CLASSROOM: A HAN 03/17/1997 - 07/31/1999 FY98: \$0 Prin. Invest.: D R COOMBS Tech. Officer: GSFC/P ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE | 8663 |
| NGT 1 52153 CLEMSON UNIVERSITY - CLEMSON GRADUATE STUDENT RESEARCHERS PROGRAM 10/29/1996 - 12/31/1997 FY98: -\$2,305 Prin. Invest.: D DINGER Tech. Officer: LARC/R HATHAWAY CASE Category: 41 - AERONAUTICAL ENGR | 8656 | NAG 5 1183 COLLEGE OF CHARLESTON EXPLOING THE SOLAR SYSTEM IN THE CLASSROOM 03/16/1998 - 03/14/2001 FY98: \$16,000 Prin. Invest.: C R COOMBS Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY | 8664 |
| NGT 1 52179 CLEMSON UNIVERSITY - CLEMSON GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 09/12/1997 - 09/11/1998 FY98: \$1 Prin. Invest.: K A CUNEFARE, W M JOHNSON Tech. Officer: LARC/R J SILCOX, LARC/J H ROBINSON CASE Category: 99 - MULTI INTERDISCIPL, OTHER | 8657 | NAG 9 146 COLLEGE OF CHARLESTON EVALUATION OF LUNAR DARK MANTLE DEPOSITS 09/18/1995 - 08/31/1998 FY98: -\$139 Prin. Invest.: D R COOMBS Tech. Officer: SSC/D SICKOREZ CASE Category: 32 - GEOLOGICAL SCIENCE | 8665 |
| NGT 5 21 CLEMSON UNIVERSITY - CLEMSON IMPROVING HIGH PERFORMANCE VO IN COMPUTATIONAL DATA PROCESSING SYSTEMS 07/15/1996 - 06/30/1999 FY98: \$22,000 Prin. Invest.: W B LIGON, III Tech. Officer: GSFC/G A SOFFEN, GSFC/N SHORT CASE Category: 22 - COMPUTER SCIENCE | 8658 | NAGW 4467 COLLEGE OF CHARLESTON EXPLOING THE SOLAR SYSTEM IN THE CLASSROOM: A HANDS ON APPROACH 05/12/1995 - 09/30/1997 FY98: \$0 Prin. Invest.: C COOMBS Tech. Officer: HQ/H BRINTON CASE Category: 99 - MULTI INTERDISCIPL, OTHER | 8666 |
| NGT 5 90037 CLEMSON UNIVERSITY - CLEMSON UNDERGRADUATE STUDENTS AWARDS FOR RESEARCH (USAR) 01/30/1997 - 12/31/1998 FY98: \$0 Prin. Invest.: S LASSER Tech. Officer: GSFC/R LAWRENCE CASE Category: 49 - ENGINEERING, OTHER | 8659 | NCC 5 263 COLLEGE OF CHARLESTON SOUTHEASTERN OSS-SPACE GRANT REGIONAL EDUCATION COALITION: KEYS TO IMPLEMENTING NASA'S OSS EDUCATION 01/12/1998 - 01/14/1999 FY98: \$250,000 Prin. Invest.: M COLGAN Tech. Officer: GSFC/J ROSENDHAL CASE Category: 11 - ASTRONOMY | 8667 |
| NGT 8 52858 CLEMSON UNIVERSITY - CLEMSON ROBUST SPEECH RECOGNITION SCHEME USING PARALLEL MODEL COMBINATION WITH AN ADAPTIVE HYBRID 07/23/1998 - 08/13/2000 FY98: \$22,000 Prin. Invest.: J N GOWDY Tech. Officer: MSFC/J F DOWDY CASE Category: 45 - ELECTRICAL ENGR | 8660 | NGT 40055 COLLEGE OF CHARLESTON SOUTH CAROLINA SPACE GRANT CONSORTIUM 08/13/1998 - 02/28/1998 FY98: \$0 Prin. Invest.: M W COLGAN Tech. Officer: HQ/E T SCHWARTZ CASE Category: 99 - MULTI INTERDISCIPL, OTHER | 8668 |
| NGT10 52611 CLEMSON UNIVERSITY - CLEMSON GRADUATE STUDENT RESEARCH GRANT 09/01/1997 - 07/30/1999 FY98: \$22,000 Prin. Invest.: D DAWSON Tech. Officer: KSC/G BUCKINGHAM CASE Category: 45 - ELECTRICAL ENGR | 8661 | NGT 5 40050 COLLEGE OF CHARLESTON NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM 02/03/1997 - 02/28/1999 FY98: \$328,027 Prin. Invest.: M COLGAN Tech. Officer: GSFC/L KEFFER CASE Category: 99 - MULTI INTERDISCIPL, OTHER | 8669 |
| NAG 8 1260 COASTAL CAROLINA UNIVERSITY JOYE RESEARCH PHASE II 01/17/1997 - 08/31/1999 FY98: \$14,000 Prin. Invest.: C GILLMAN, D Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT CASE Category: 99 - MULTI INTERDISCIPL, OTHER | 8662 | NGT 5 40052 COLLEGE OF CHARLESTON SOUTH CAROLINA SPACE GRANT CONSORTIUM-NATIONAL SPACE FELLOWSHIP PROGRAM 02/07/1997 - 11/14/1998 FY98: \$0 Prin. Invest.: M COLGAN Tech. Officer: GSFC/L OSTENDORF CASE Category: 99 - MULTI INTERDISCIPL, OTHER | 8670 |

NAG 8 1101 FURMAN UNIVERSITY **8671**
JOVE
 10/19/1994 – 05/31/1998 FY98: \$0 Total: \$122,000
Prin. Invest.: K C ABERNETHY, H S PORTER, JR.
Tech. Officer: MSFC/F SIX
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NAG 8 1385 MEDICAL UNIVERSITY OF SOUTH CAROLINA **8672**
RESEARCH "GASTRIC MUCOSAL CELL CULTURE IN SIMULATED MICROGRAVITY"
 06/17/1997 – 11/30/2000 FY98: \$108,501 Total: \$195,501
Prin. Invest.: A J SMOLKA
Tech. Officer: MSFC/C R TALLEY
CASE Category: 56 – MEDICL

NAG 5 4252 SOUTH CAROLINA STATE UNIVERSITY **8673**
SHARE WITH A PAIR OF PEERS PROJECT (SWAPOP)
 04/07/1997 – 08/14/1998 FY98: \$0 Total: \$371,089
Prin. Invest.: J FULLER
Tech. Officer: GSFC/M MATEU
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 4618 SOUTH CAROLINA STATE UNIVERSITY **8674**
SHARE WITH A PAIR OF PEERS – SWAPOP PROJECT
 07/21/1995 – 08/14/1998 FY98: \$0 Total: \$184,227
Prin. Invest.: J W FULLER
Tech. Officer: HQ/B L WHITE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 5 116 SOUTH CAROLINA STATE UNIVERSITY **8675**
CENTER FOR NETWORK RESOURCES AND TRAINING AT SOUTH CAROLINA STATE UNIVERSITY
 08/15/1995 – 08/14/1999 FY98: \$158,000 Total: \$1,998,000
Prin. Invest.: D K WALTER
Tech. Officer: GSFC/J BENNETT
CASE Category: 22 – COMPUTER SCIENCE

NAG 1 1664 UNIVERSITY OF SOUTH CAROLINA–COLUMBIA **8676**
DEVELOPMENT OF A PC-BASED, AUTOMATED CRACK CLOSURE MEASUREMENT SYSTEM USING COMPUTER VISION
 01/31/1995 – 05/31/1998 FY98: -\$1,104 Total: \$266,877
Prin. Invest.: M SUTTON
Tech. Officer: LARC/R S PIASCIO
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 1 2108 UNIVERSITY OF SOUTH CAROLINA–COLUMBIA **8677**
A FUNDAMENTAL STUDY OF MATERIAL FLOW IN FRICTION STIR WELDS
 09/08/1998 – 07/31/1999 FY98: \$8,000 Total: \$8,000
Prin. Invest.: A P REYNOLDS
Tech. Officer: LARC/R A HAFLEY
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 5 4442 UNIVERSITY OF SOUTH CAROLINA–COLUMBIA **8678**
ION MICROPROBE STUDY OF PRIMOCRYSTS IN LUNAR CUMUL
 04/23/1997 – 05/31/1999 FY98: \$15,000 Total: \$30,000
Prin. Invest.: D W SHERVAIS
Tech. Officer: HQ/J M BOYCE
CASE Category: 11 – ASTRONOMY

NAGW 3637 UNIVERSITY OF SOUTH CAROLINA–COLUMBIA **8679**
BASALTIC VOLCANISM AND ANCIENT PLANETARY CRUSTS
 06/04/1993 – 09/30/1997 FY98: \$0 Total: \$81,811
Prin. Invest.: J SHERVAIS
Tech. Officer: HQ/J BOYCE
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 4610 UNIVERSITY OF SOUTH CAROLINA–COLUMBIA **8680**
DURABILITY OF ADVANCED MATERIALS FOR THE NEXT GENERATION OF SUBSONIC AIRCRAFT
 08/11/1995 – 09/01/1997 FY98: -\$34 Total: \$149,966
Prin. Invest.: M COLGAN
Tech. Officer: HQ/A S MCGEE, HQ/E T SCHWARTZ
CASE Category: 49 – ENGINEERING, OTHER

NAG13 27 UNIVERSITY OF SOUTH CAROLINA–COLUMBIA **8681**
A NASA VISITING INVESTIGATOR PROGRAM
 09/02/1993 – 12/31/1999 FY98: \$229,861 Total: \$663,752
Prin. Invest.: J R JENSEN, D C COWEN
Tech. Officer: SSC/C
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 5 174 UNIVERSITY OF SOUTH CAROLINA–COLUMBIA **8682**
EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESE
 12/16/1996 – 03/31/1999 FY98: \$499,961 Total: \$999,009
Prin. Invest.: J D ODOM
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52128 UNIVERSITY OF SOUTH CAROLINA–COLUMBIA **8683**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/23/1996 – 06/30/1999 FY98: \$22,000 Total: \$54,000
Prin. Invest.: M A SUTTON
Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU
CASE Category: 41 – AERONAUTICAL ENGR

NGT13 52712 UNIVERSITY OF SOUTH CAROLINA–COLUMBIA **8684**
NASA GRADUATE STUDENT PROGRAM–LEWIS HYPERSPECTRAL CHARACTERIZATION OF HAZARDOUS WASTE SITE CLAY CAPS
 07/22/1997 – 07/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: J JENSEN
Tech. Officer: JSC/A JOYCE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 1 1931 VOORHEES COLLEGE **8685**
ESTABLISHING VOORHEES COLLEGE GEOGRAPHIC INFORMATION SYSTEM (GIS) CENTER FOR RESEARCH, EDUCATION, AND
 05/23/1997 – 05/31/1999 FY98: \$90,000 Total: \$270,000
Prin. Invest.: J QIN
Tech. Officer: LARC/W BALL
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1310 WOFFORD COLLEGE **8686**
JOVE RESEARCH
 01/21/1997 – 08/31/1999 FY98: \$5,000 Total: \$35,770
Prin. Invest.: D M SCOTT
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 49 – ENGINEERING, OTHER

SOUTH DAKOTA

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| NAG 5 6299 AUGUSTANA COLLEGE 8687 AUGUSTANA COLLEGE, EARTH SYSTEM SCIENCE, CURRICULU 09/19/1997 - 08/31/1999 FY98: \$19,992 Total: \$38,984 Prin. Invest.: V K OLNESS Tech. Officer: GSFC/N KHAZENIE CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 1654 SOUTH DAKOTA SCHOOL OF MINES & TECH 8695 GLOBAL CLOUD MASK AND RETRIEVAL OF CLOUD PARTICLE USING ADEOS OCTS DATA 05/21/1997 - 06/30/1997 FY98: \$0 Total: \$26,000 Prin. Invest.: Q HAN Tech. Officer: GSFC/R A SCHIFFER CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NAG 5 7548 OGLALA LAKOTA COLLEGE 8688 OGLALA LAKOTA COLLEGE PACE/MSET 07/01/1998 - 06/30/1999 FY98: \$100,000 Total: \$100,000 Prin. Invest.: J HAAS Tech. Officer: GSFC/T GULL CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NAG 5 1872 SOUTH DAKOTA SCHOOL OF MINES & TECH 8696 CENTER FOR EXCELLENCE IN REMOTE SENSING AT SDSM&T 01/13/1998 - 01/14/1999 FY98: \$82,300 Total: \$82,300 Prin. Invest.: M PRICE Tech. Officer: GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 9 967 OGLALA LAKOTA COLLEGE 8689 SMATH-STUDENT MATH & HEALTH SCIENCES INITIATIVE 09/24/1997 - 09/30/1999 FY98: \$20,000 Total: \$140,000 Prin. Invest.: D J DEMAREST Tech. Officer: JSC/L ARMENDARIZ CASE Category: 59 - LIFE SCIENCE, OTHER | NAG 8 1447 SOUTH DAKOTA SCHOOL OF MINES & TECH 8697 UPPER MISSOURI RIVER BASIN HYDROLOGY: PILOT PROJECT 02/23/1998 - 01/31/2000 FY98: \$800,000 Total: \$800,000 Prin. Invest.: S O FAREWELL, P L SMITH Tech. Officer: MSFC/J ARNOLD CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 3 1680 SOUTH DAKOTA SCHOOL OF MINES & TECH 8690 STUDY OF SOLID STATE SURFACE FOR ELECTRON EMISSION APPLICATIONS 12/05/1994 - 01/16/1999 FY98: \$0 Total: \$50,708 Prin. Invest.: A PETUKHOV Tech. Officer: LERC/I L KRAINSKY CASE Category: 13 - PHYSICS | NAGW 3740 SOUTH DAKOTA SCHOOL OF MINES & TECH 8698 IMPACT OF AEROSOLS GENERATED FROM BIOMASS BURNING, DUST STORMS, AND VOLCANOES 09/22/1993 - 06/30/1997 FY98: \$0 Total: \$223,220 Prin. Invest.: R M WELCH, R M WELCH Tech. Officer: HQ/J T SUTTLES, HQ/A C JANETOS CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NAG 5 386 SOUTH DAKOTA SCHOOL OF MINES & TECH 8691 RAIN VOLUME ESTIMATION OVER AREAS USING SATELLITE AND RADAR DATA 01/01/1984 - 04/30/1999 FY98: \$0 Total: \$743,327 Prin. Invest.: P SMITH, T H VONDER HAAR Tech. Officer: GSFC/R F ADLER CASE Category: 31 - ATMOSPHERIC SCIENCE | NAGW 1788 SOUTH DAKOTA SCHOOL OF MINES & TECH 8699 GLOBAL AND REGIONAL AEROSOLS AND THEIR EFFECTS ON CLOUD PROPERTIES 10/05/1993 - 09/30/1997 FY98: -\$10 Total: \$200,110 Prin. Invest.: Q Y HAN Tech. Officer: HQ/J C DODGE CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NAG 5 2711 SOUTH DAKOTA SCHOOL OF MINES & TECH 8692 EFFECTS OF SUBSONIC AIRCRAFT ON AEROSOLS AND CLOUDINESS IN THE UPPER TROPOSPHERE, ETC... 09/01/1994 - 08/31/1997 FY98: \$0 Total: \$120,000 Prin. Invest.: A G DETWILER Tech. Officer: GSFC/R W STEWART CASE Category: 31 - ATMOSPHERIC SCIENCE | NAGW 1922 SOUTH DAKOTA SCHOOL OF MINES & TECH 8700 GLOBAL RETRIEVAL OF CLOUD PARTICLE SIZE AND OPTICAL THICKNESS USING ISACP DATA 04/05/1994 - 09/30/1997 FY98: \$0 Total: \$194,600 Prin. Invest.: Q HAN Tech. Officer: HQ/R A SCHIFFER CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NAG 5 2712 SOUTH DAKOTA SCHOOL OF MINES & TECH 8693 RADIATIVE EFFECTS OF SUBSONIC JET CONTRAILS 09/01/1994 - 08/31/1997 FY98: -\$52,000 Total: \$142,986 Prin. Invest.: R M WELCH Tech. Officer: GSFC/R W STEWART CASE Category: 31 - ATMOSPHERIC SCIENCE | NAGW 3166 SOUTH DAKOTA SCHOOL OF MINES & TECH 8701 "ERBE AND SAGE-II INVEST. OF CLOUD RADIATIVE.." 05/13/1994 - 06/30/1997 FY98: \$0 Total: \$261,300 Prin. Invest.: S A CHRISTOPHER Tech. Officer: HQ/R A SCHIFFER, HQ/R A HARRISS CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NAG 5 2950 SOUTH DAKOTA SCHOOL OF MINES & TECH 8694 SCIENTIFIC KNOWLEDGE FOR INDIAN LEARNING AND LEADERSHIP(SKILL) NASA HONORS SUMMER PROGRAM 05/31/1995 - 05/31/1999 FY98: \$100,000 Total: \$533,208 Prin. Invest.: P S HUEBNER Tech. Officer: GSFC/T GULL CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAGW 4108 SOUTH DAKOTA SCHOOL OF MINES & TECH 8702 A NEW CLASS OF MATERIAL FOR LONG DURATION SCIENTIFIC BALLOON PLATFORMS 08/24/1995 - 05/31/1997 FY98: \$0 Total: \$75,000 Prin. Invest.: C JENKINS Tech. Officer: HQ/G ASRAR CASE Category: 41 - AERONAUTICAL ENGR |

NAGW 4791 SOUTH DAKOTA SCHOOL OF MINES & TECH **8703**
GLOBAL CLOUD MASK & RETRIEVAL OF CLOUD PARTICLE SIZE & OPTICAL THICKNESS USING A EOS OCTS DATA
 09/25/1995 – 06/30/1997 FY98: \$0 Total: \$20,000
Prin. Invest.: R M WELCH
Tech. Officer: HQ/R A SCHIFFER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 1 19077 SOUTH DAKOTA SCHOOL OF MINES & TECH **8704**
SCIENCE INVESTIGATIONS IN SUPPORT OF CLOUDS AND THE EARTH'S RADIANT ENERGY SYSTEM (CERES)
 12/12/1989 – 06/30/1997 FY98: -\$9,327 Total: \$1,357,972
Prin. Invest.: R M WELCH
Tech. Officer: LARC/B A WIELICKI, LARC/J W YOUNGBLOOD
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NCC 9 24 SOUTH DAKOTA SCHOOL OF MINES & TECH **8705**
ELECTRONIC EXTENSION SERVICES
 05/18/1994 – 04/30/1998 FY98: \$0 Total: \$1,344,412
Prin. Invest.: T S ARNESON
Tech. Officer: JSC/C WOOLLEY
CASE Category: 49 – ENGINEERING, OTHER

NGT 40046 SOUTH DAKOTA SCHOOL OF MINES & TECH **8706**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 03/14/1991 – 02/28/1998 FY98: \$0 Total: \$1,005,000
Prin. Invest.: S O FARWELL
Tech. Officer: HQ/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 3 52312 SOUTH DAKOTA SCHOOL OF MINES & TECH **8707**
IN-SITU NEAR INFRARED CURE MONITORING AND SURFACE ANALYSIS OF POLYMER COMPOSITES
 06/21/1996 – 06/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: J KELLER
Tech. Officer: LERC/F MONTAGANI
CASE Category: 47 – METAL & MATERIALS ENGR

NGT 5 40042 SOUTH DAKOTA SCHOOL OF MINES & TECH **8708**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 01/24/1997 – 02/28/1999 FY98: \$212,500 Total: \$382,500
Prin. Invest.: S O FARWELL
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 3445 SOUTH DAKOTA STATE UNIVERSITY **8709**
CHARACTERIZATION OF LANDSAT-7 GEOMETRY AND RADIOMETRY FOR LAND COVER ANALYSIS
 10/04/1996 – 10/31/1998 FY98: \$79,454 Total: \$164,442
Prin. Invest.: D HELDER
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 11 – ASTRONOMY

NAG 5 3540 SOUTH DAKOTA STATE UNIVERSITY **8710**
TM RADIOMETRIC CALIBRATION
 11/19/1996 – 11/30/1998 FY98: \$47,402 Total: \$119,002
Prin. Invest.: D HELDER
Tech. Officer: GSFC/D L WILLIAMS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 8 258 SOUTH DAKOTA STATE UNIVERSITY **8711**
JOVE
 11/30/1992 – 05/31/1997 FY98: -\$2,065 Total: \$141,258
Prin. Invest.: S SCHILLER, M ROSE, D HELDER
Tech. Officer: MSFC/F SIX
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

TENNESSEE

NAG 8 1218 EAST TENNESSEE STATE UNIVERSITY **8712**
JOVE
 11/30/1995 – 08/31/1998 FY98: \$0 Total: \$81,000
Prin. Invest.: D J WILSON
Tech. Officer: MSFC/D SIX
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1375 EAST TENNESSEE STATE UNIVERSITY **8713**
METASTABLE SOLUTION STRUCTURE AND OPTIMIZATION STRATEGIES IN PROTEIN CRYSTAL GROWTH
 06/18/1997 – 11/30/2000 FY98: \$13,000 Total: \$125,000
Prin. Invest.: L WILSON
Tech. Officer: MSFC/C TALLEY
CASE Category: 59 – LIFE SCIENCE, OTHER

NCC 2 5242 EAST TENNESSEE STATE UNIVERSITY **8714**
VERIFICATION AND VALIDATION OF AUTOMATICALLY GENERATED SOURCE CODE
 10/30/1997 – 09/30/1999 FY98: \$78,782 Total: \$78,782
Prin. Invest.: J HENRY
Tech. Officer: ARC/F A PATTERSON-HINE
CASE Category: 22 – COMPUTER SCIENCE

NAG 2 6015 FISK UNIVERSITY **8715**
TRAINING UNDER-REPRESENTED STUDENTS IN BIOLOGICAL RESEARCH AT FISK UNIVERSITY
 08/20/1997 – 08/31/1998 FY98: \$0 Total: \$98,961
Prin. Invest.: M GUNASEKARAN
Tech. Officer: ARC/G S LEE
CASE Category: 54 – ENVIRONMENTAL BIOLOGY

NAG 3 1942 FISK UNIVERSITY **8716**
LINEAR & NONLINEAR OPTICAL PROPERTIES, CARRIER DYNAMICS & SURFACE MORPHOLOGY
 08/22/1996 – 08/12/1999 FY98: \$38,000 Total: \$113,000
Prin. Invest.: D O HENDERSON
Tech. Officer: LERC/S G BAILEY
CASE Category: 13 – PHYSICS

NAG 3 2012 FISK UNIVERSITY **8717**
INTERFACIAL PHYSICS OF METAL/SIC INTERFACE INTERFACIAL PHYSICS OF METAL/SIC INTERFACE
 02/28/1997 – 11/30/1997 FY98: \$0 Total: \$175,000
Prin. Invest.: W E COLLINS
Tech. Officer: LERC/D J LARKIN
CASE Category: 45 – ELECTRICAL ENGR

NAG 3 2126 FISK UNIVERSITY **8718**
RELATIONSHIPS BETWEEN INTERFACIAL DIFFUSIONS AND REACTIONS
AND ELECTRICAL PROPERTIES OF METAL ULTRA
 02/23/1998 – 01/15/1999 FY98: \$72,000 Total: \$72,000
Prin. Invest.: W E COLLINS
Tech. Officer: LERC/D J LARKIN
CASE Category: 45 – ELECTRICAL ENGR

NAG 5 4011 FISK UNIVERSITY **8719**
X-RAY/GAMMA-RAY REMOTE SENSING AND IN-SITU SPECTRO EXPLORA-
TION MISSION (PIDDP)13
 03/11/1997 – 03/14/1998 FY98: \$0 Total: \$10,000
Prin. Invest.: A BURGER
Tech. Officer: GSFC/J I TROMKA
CASE Category: 13 – PHYSICS

NAG 8 1066 FISK UNIVERSITY **8720**
METAL AND SEMICONDUCTOR NANOCRYSTALS
 07/11/1994 – 07/31/1997 FY98: \$0 Total: \$333,831
Prin. Invest.: D O HENDERSON, R MU
Tech. Officer: MSFC/J DOWNEY
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 8 1402 FISK UNIVERSITY **8721**
1997 PARTNERSHIP AWARD TELEMEDICINE AND RAPID IDENTIFICATION
OF MICROORGANISM BY FOURIER
 09/09/1997 – 08/30/1998 FY98: \$0 Total: \$189,079
Prin. Invest.: H T CAULFRED
Tech. Officer: MSFC/J BIBRO
CASE Category: 11 – ASTRONOMY

NAG 8 1538 FISK UNIVERSITY **8722**
R/S A LABORATORY INVESTIGATION OF COLLECTION GRAIN CHARGING
IN SPACE DUSTY PLASMAS
 07/13/1998 – 07/12/1999 FY98: \$49,901 Total: \$49,901
Prin. Invest.: E THOMAS, JR.
Tech. Officer: MSFC/J SPAN
CASE Category: 13 – PHYSICS

NCC 3 575 FISK UNIVERSITY **8723**
CONSORTIUM FOR ADVANCING RENEWABLE ENERGY TECHNOLOGY
(CARET)
 09/11/1997 – 07/14/1999 FY98: \$498,798 Total: \$1,002,620
Prin. Invest.: D O HENDERSON
Tech. Officer: LERC/A F HEPP
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NCC 5 286 FISK UNIVERSITY **8724**
NOVEL METHODS OF FABRICATION AND EVALUATION OF ROOM TEMPER-
ATURE X-RAY AND GAMMA-RAY CDZNT DETECT
 12/12/1997 – 12/14/1998 FY98: \$100,000 Total: \$100,000
Prin. Invest.: A BURGER
Tech. Officer: GSFC/N GEHRELS
CASE Category: 13 – PHYSICS

NCC 8 133 FISK UNIVERSITY **8725**
FOR RESEARCH "FISK UNIVERSITY CENTER FOR PHOTONIC MATERIALS
AND DEVICES"
 04/21/1997 – 12/31/1999 FY98: \$1,000,000 Total: \$2,000,000
Prin. Invest.: E SILHERMAN
Tech. Officer: MSFC/D O FRAZIER
CASE Category: 13 – PHYSICS

NCC 8 145 FISK UNIVERSITY **8726**
NOVEL METHOD FOR EVALUATION OF UNIFORMITY AND STRUCTURAL
HOMOGENEITY OF TERNARY WIDE GAP SEMI
 09/19/1997 – 09/30/1998 FY98: \$0 Total: \$200,000
Prin. Invest.: A BURGER
Tech. Officer: MSFC/A LEHOCZKY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 9 780 MEHARRY MEDICAL COLLEGE **8727**
NASA/MEHARRY RESEARCH PROGRAM
 04/17/1995 – 06/01/1997 FY98: \$0 Total: \$170,754
Prin. Invest.: J WILSON
Tech. Officer: JSC/J D ATKINSON
CASE Category: 56 – MEDICAL

NAG 9 934 MEHARRY MEDICAL COLLEGE **8728**
1997 NASA MEHARRY RESEARCH PROGRAM
 06/06/1997 – 05/30/1998 FY98: \$0 Total: \$83,453
Prin. Invest.: J E WILSON
Tech. Officer: JSC/J ATKINSON
CASE Category: 56 – MEDICAL

NAG 8 1211 MIDDLE TENNESSEE STATE UNIVERSITY **8729**
JOVE
 09/22/1995 – 08/31/1999 FY98: \$0 Total: \$82,000
Prin. Invest.: D HEFFINGTON, D WHITE
Tech. Officer: MSFC/D SIX
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 8 1486 MIDDLE TENNESSEE STATE UNIVERSITY **8730**
R/S DEVELOPMENT OF ANIONIC POLYELECTROLYTES FOR SOLID STATE
BATTERY APPLICATION
 04/21/1998 – 01/31/2002 FY98: \$46,667 Total: \$46,667
Prin. Invest.: A C FRIEDLI
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 3049 RHODES COLLEGE **8731**
ACCELERATION OF THE SOLAR WIND
 07/25/1997 – 08/31/1999 FY98: \$0 Total: \$20,370
Prin. Invest.: D MACQUEEN
Tech. Officer: GSFC/M FORMAN
CASE Category: 11 – ASTRONOMY

NAGW 4671 RHODES COLLEGE **8732**
ACCELERATION OF THE SOLAR WIND
 09/12/1995 – 08/31/1998 FY98: \$0 Total: \$40,740
Prin. Invest.: R M MACQUEEN
Tech. Officer: HQ/W V JONES, HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAG 3 1471 TENNESSEE STATE UNIVERSITY **8733**
ROBUST INTEGRATED NEURO CONTROLLER FOR COMPLEX DYNAMIC
SYSTEMS
 05/31/1993 – 11/30/1996 FY98: \$10,800 Total: \$481,035
Prin. Invest.: M S ZEIN-SABATTO, MARPAKA, MMALKANI
Tech. Officer: LERC/T GUO
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 1479 TENNESSEE STATE UNIVERSITY **8734**
A STUDY OF RELATIONSHIP BETWEEN PROBABILISTIC DESIGN & AXIOMETRIC DESIGN METHODOLOGY
 05/14/1993 - 11/30/1996 FY98: \$0 Total: \$1,050,014
Prin. Invest.: C ONWVBIXO, F MISHU, F C CHEN
Tech. Officer: LERC/L BERKE, LERC/D HOPKINS
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1709 TENNESSEE STATE UNIVERSITY **8735**
TSU RESEARCH PROJECT FOR INCREASING THE POOL OF MINORITY ENGINEERS
 02/01/1995 - 11/01/1998 FY98: \$34,660 Total: \$253,979
Prin. Invest.: B ROGERS
Tech. Officer: LERC/J BOYD
CASE Category: 49 - ENGINEERING, OTHER

NAG 3 1797 TENNESSEE STATE UNIVERSITY **8736**
MELTING OF SOLID PARTICLES IN A FLUID UNDER MICROGRAVITY
 11/28/1995 - 12/31/1999 FY98: \$149,960 Total: \$449,920
Prin. Invest.: P X TAO
Tech. Officer: LERC/D S SINGH
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1897 TENNESSEE STATE UNIVERSITY **8737**
NEURAL NETWORK CLASSIFIERS FOR DIGITAL COMMUNICATIONS TRAFFIC MANAGEMENT
 06/18/1996 - 09/30/1997 FY98: -\$5,996 Total: \$43,948
Prin. Invest.: J R JOHNSON
Tech. Officer: LERC/R E JONES
CASE Category: 45 - ELECTRICAL ENGR

NAG 8 1018 TENNESSEE STATE UNIVERSITY **8738**
RESEARCH ON THE MECHANICAL PROPERTIES OF ION BEAM DEPOSITS
 03/04/1994 - 08/31/1998 FY98: \$0 Total: \$448,153
Prin. Invest.: D K CHAUDHUN
Tech. Officer: MSFC/F E ROBERTS, MSFC/R J WALKER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG10 217 TENNESSEE STATE UNIVERSITY **8739**
NEW AUTOMATED WEB BASED TRACKING SYSTEM
 09/01/1997 - 09/30/1999 FY98: \$177,760 Total: \$308,360
Prin. Invest.: S SINGH DEVGAN
Tech. Officer: KSC/K BALLARD
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 883 TENNESSEE STATE UNIVERSITY **8740**
ARTIFICIAL INTELLIGENCE SCHEDULING OF AUTOMATED TELESCOPES
 01/31/1995 - 09/30/1996 FY98: -\$3,985 Total: \$96,015
Prin. Invest.: G W HENRY
Tech. Officer: ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 977 TENNESSEE STATE UNIVERSITY **8741**
THE ASSOCIATE PRINCIPAL ASTRONOMER FOR AUTOMATIC TELESCOPES
 01/24/1997 - 02/28/1998 FY98: \$0 Total: \$120,000
Prin. Invest.: G W HENRY
Tech. Officer: ARC/K J SWANSON, ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 96 TENNESSEE STATE UNIVERSITY **8742**
NASA/TSU NETWORK RESOURCE AND TRAINING SITE
 08/15/1995 - 08/14/1999 FY98: \$145,000 Total: \$1,845,000
Prin. Invest.: W SMITH
Tech. Officer: GSFC/J BENNETT
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 228 TENNESSEE STATE UNIVERSITY **8743**
UNIVERSITY RESEARCH CENTER FOR AUTOMATED SPACE SCIENCE
 09/05/1997 - 06/30/1999 FY98: \$420,000 Total: \$1,920,000
Prin. Invest.: M BUSBY
Tech. Officer: GSFC/P SAKIMOTO
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCCW 85 TENNESSEE STATE UNIVERSITY **8744**
CENTER FOR AUTOMATED SPACE SCIENCE
 07/20/1995 - 06/30/2000 FY98: \$0 Total: \$3,000,000
Prin. Invest.: M R BUSBY
Tech. Officer: HQ/B L WHITE
CASE Category: 11 - ASTRONOMY

NGT 5 90013 TENNESSEE STATE UNIVERSITY **8745**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 12/31/1996 - 08/14/1998 FY98: \$0 Total: \$120,000
Prin. Invest.: D E ROGERS
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 45 - ELECTRICAL ENGR

NAG 8 1279 TENNESSEE TECHNOLOGICAL UNIVERSITY **8746**
RESEARCH FOR JOVE
 01/21/1997 - 08/31/1999 FY98: \$31,000 Total: \$75,000
Prin. Invest.: J C CHAI
Tech. Officer: MSFC/J P DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 1686 UNIVERSITY OF MEMPHIS **8747**
FINITE ELEMENT ANALYSIS OF HELICAL GEAR TOOTH MODIFICATIONS - DYNAMICS
 12/08/1994 - 09/30/1997 FY98: \$0 Total: \$110,000
Prin. Invest.: H H LIN
Tech. Officer: LERC/N AVAILABLE
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2092 UNIVERSITY OF MEMPHIS **8748**
DYNAMIC INVESTIGATION OF STANDARD AND NON-STANDARD PARALLEL-AXIS GEARS
 12/09/1997 - 11/25/2000 FY98: \$50,000 Total: \$50,000
Prin. Invest.: H H LIN
Tech. Officer: LERC/F B OSWALD
CASE Category: 46 - MECHANICAL ENGR

NAG 5 2995 UNIVERSITY OF MEMPHIS **8749**
ZSCAPE A COUPLED TECTONIC GEOMORPHIC LANDSCAPE EVOLUTION MODEL
 07/07/1995 - 07/14/1999 FY98: \$0 Total: \$175,000
Prin. Invest.: M ELLIS
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7197 UNIVERSITY OF MEMPHIS **8750**
NEW DIAGNOSTIC CONSTRAINTS FOR CORONAL HEATING AND LOOP DYNAMICS MODELS
 04/14/1998 – 04/30/1999 FY98: \$43,537 Total: \$43,537
Prin. Invest.: J T SCHMELZ
Tech. Officer: GSFC/W WAGNER
CASE Category: 11 – ASTRONOMY

NAG 5 7617 UNIVERSITY OF MEMPHIS **8751**
FUNDING FOR 'LANDSLIDE HAZARD IN RESPONSE TO SHORT TERM CLIMATE CHANGE' (SENH98-0020)
 07/24/1998 – 12/31/1998 FY98: \$37,500 Total: \$37,500
Prin. Invest.: M ELLIS
Tech. Officer: GSFC/H V FREY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 8 1371 UNIVERSITY OF MEMPHIS **8752**
R/S "MODELING MAGNETICALLY ACTUATED POSITIVE POSITIONING OF CRYOGENIC PROPELLANTS"
 05/22/1997 – 12/31/1999 FY98: \$0 Total: \$50,000
Prin. Invest.: J HOCHSTEIN
Tech. Officer: MSFC/G SCHMIDT
CASE Category: 13 – PHYSICS

NAG 1 1368 UNIVERSITY OF TENNESSEE – KNOXVILLE **8753**
AERODYNAMIC/ACOUSTIC COMPUTATION OF HELICOPTER ROTORS INCLUDING BLADE/VORTEX IMPINGEMENT
 12/12/1991 – 06/09/1997 FY98: -\$1 Total: \$224,330
Prin. Invest.: J S STEINHOFF *Prin. Invest.:* NONE
Tech. Officer: LARC/C L BURLEY, LARC/T F BROOKS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 2 1218 UNIVERSITY OF TENNESSEE – KNOXVILLE **8754**
PARALLEL & DISTRIBUTED SYSTEM SIMULATION
 05/18/1998 – 09/30/1998 FY98: \$40,000 Total: \$40,000
Prin. Invest.: J DONGARRA
Tech. Officer: ARC/S SAINI
CASE Category: 22 – COMPUTER SCIENCE

NAG 3 2068 UNIVERSITY OF TENNESSEE – KNOXVILLE **8755**
DEVELOPMENT OF A 3-D TURBOFAN INLET DISCRETE TONE RADIATION ANALYSIS CODE
 08/15/1997 – 10/31/1998 FY98: \$0 Total: \$49,836
Prin. Invest.: J E CARUTHERS
Tech. Officer: LERC/E ENVIA
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 3464 UNIVERSITY OF TENNESSEE – KNOXVILLE **8756**
INNOVATIVE RESEARCH PROGRAM – ISOTOPE MEASUREMENTS
 11/02/1996 – 08/31/1999 FY98: \$0 Total: \$294,991
Prin. Invest.: N THONNARD
Tech. Officer: GSFC/D HOLLAND
CASE Category: 11 – ASTRONOMY

NAG 5 4370 UNIVERSITY OF TENNESSEE – KNOXVILLE **8757**
PETROGENESIS OF THE LUNAR AND PLANETARY CRUSTS AND
 04/16/1997 – 01/31/1999 FY98: \$108,750 Total: \$218,750
Prin. Invest.: D A TAYLOR
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4387 UNIVERSITY OF TENNESSEE – KNOXVILLE **8758**
CONSTRAINING ACCRETION AND DIFFERENTIATION OF PLAN MODELLING
 04/24/1997 – 02/28/1999 FY98: \$33,033 Total: \$82,583
Prin. Invest.: D Y MCSWEEN, JR.
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4541 UNIVERSITY OF TENNESSEE – KNOXVILLE **8759**
METEORITE PETROGENESIS
 05/06/1997 – 03/31/1999 FY98: \$70,000 Total: \$170,000
Prin. Invest.: D V MCSWEEN, JR.
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4842 UNIVERSITY OF TENNESSEE – KNOXVILLE **8760**
MINERALOGY AND SPECTRAL PROPERTIES OF LUNAR SOIL
 06/19/1997 – 04/30/1999 FY98: \$25,000 Total: \$50,000
Prin. Invest.: D A TAYLOR
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 6237 UNIVERSITY OF TENNESSEE – KNOXVILLE **8761**
FUNDING FOR GRANT – TITLE "ADAPTIVE IMAGING: LOW IMAGING THROUGH TURBULENCE" PLEASE CALL CHARLENE @
 08/19/1997 – 08/14/1999 FY98: \$0 Total: \$20,000
Prin. Invest.: W E BLASS
Tech. Officer: GSFC/J J HILLMAN
CASE Category: 11 – ASTRONOMY

NAG 8 1166 UNIVERSITY OF TENNESSEE – KNOXVILLE **8762**
DEVELOPMENT OF LIQUID HANDLING TECHNIQUES IN MICRO GRAVITY
 10/06/1995 – 08/31/1997 FY98: \$0 Total: \$54,108
Prin. Invest.: B N ANTAR
Tech. Officer: MSFC/D M KORNFELD
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1136 UNIVERSITY OF TENNESSEE – KNOXVILLE **8763**
DEVELOPMENT OF LIQUID HANDLING TECHNIQUES IN MICRO GRAVITY UNDER DR. B.N. ANTAR
 03/06/1997 – 01/05/1999 FY98: \$0 Total: \$39,916
Prin. Invest.: B N ANTAR
Tech. Officer: MSFC/D M KORNFELD
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 8 1442 UNIVERSITY OF TENNESSEE – KNOXVILLE **8764**
R/S PROJECT SEE (SATELITE ENERGY EXCHANGE) TEST OF EQUIVALENCE PRINCIPLE & MEASUREMENT OF GRAVITATION
 04/24/1998 – 01/31/2003 FY98: \$30,000 Total: \$30,000
Prin. Invest.: A J SANDERS, NONE
Tech. Officer: MSFC/J POE
CASE Category: 13 – PHYSICS

NAG 9 848 UNIVERSITY OF TENNESSEE – KNOXVILLE **8765**
DOSE-TIME PROFILES OF MAJOR SOLAR ENERGETIC PARTICLE EVENTS
 01/19/1996 – 09/19/1998 FY98: \$0 Total: \$104,631
Prin. Invest.: D W TOWNSEND, NONE
Tech. Officer: JSC/G BADHWAR
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAGW 3141 UNIVERSITY OF TENNESSEE – KNOXVILLE **8766**
EMBRYOGENESIS OF GRAMINEAL IN MICROGRAVITY
 07/24/1992 – 06/30/1997 FY98: \$0 Total: \$156,000
Prin. Invest.: B V CONGER
Tech. Officer: HQ/T W HALSTEAD
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAGW 3453 UNIVERSITY OF TENNESSEE – KNOXVILLE **8767**
PETROGENESIS OF THE LUNAR CRUST AND MANTLE
 03/29/1993 – 01/31/1997 FY98: \$0 Total: \$470,802
Prin. Invest.: L TAYLOR
Tech. Officer: HQ/H C BRINTON
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 3578 UNIVERSITY OF TENNESSEE – KNOXVILLE **8768**
REMOTE SENSING OF OCEAN COLOR IN THE HIGH ARCTIC
 05/05/1993 – 09/30/1997 FY98: \$0 Total: \$361,112
Prin. Invest.: G COTA
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 33 – OCEANOGRAPHY

NAGW 3621 UNIVERSITY OF TENNESSEE – KNOXVILLE **8769**
METEORITE PETROGENESIS
 06/17/1993 – 03/31/1997 FY98: -\$2,133 Total: \$380,063
Prin. Invest.: H MCSWEEN
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAGW 4774 UNIVERSITY OF TENNESSEE – KNOXVILLE **8770**
KRYPTON AND XENON ISOTOPE MEASUREMENTS FROM SINGLE MICRON-SIZED REFRACTORY EXTRATERRESTRIAL GRAINS
 09/20/1995 – 08/31/1997 FY98: \$0 Total: \$147,009
Prin. Invest.: N THONNARD
Tech. Officer: HQ/D A HOLLAND, HQ/J H BREDEKAMP
CASE Category: 11 – ASTRONOMY

NAG10 221 UNIVERSITY OF TENNESSEE – KNOXVILLE **8771**
GRAVITATIONAL EFFECTS ON EMBRYOGENESIS
 07/31/1997 – 10/31/1998 FY98: \$0 Total: \$112,000
Prin. Invest.: R CONGES
Tech. Officer: KSC/W KNOTT
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG13 55 UNIVERSITY OF TENNESSEE – KNOXVILLE **8772**
PC-BASED CFD NUMERICAL MODEL OF HYDROGEN FLAMES FROM ROCKET TEST STAND FLARE STACK
 06/18/1997 – 06/17/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: R SCHULTZ
Tech. Officer: SSC/B ST. CYR
CASE Category: 55 – AGRICULTURE

NAS 8 97301 UNIVERSITY OF TENNESSEE – KNOXVILLE **8773**
CRITICAL PHYSICAL PROCESSES, IGNITION, DDT LENGTHS AND TIME ACCURATE TREATMENTS
 07/30/1997 – 08/01/1998 FY98: \$0 Total: \$105,000
Prin. Invest.: J W MUELHAUSER
Tech. Officer: MSFC/J COLE
CASE Category: 13 – PHYSICS

NCC 1 223 UNIVERSITY OF TENNESSEE – KNOXVILLE **8774**
EXPLORATORY INVESTIGATION OF AERODYNAMICS DRAG REDUCTION USING A SURFACE LAYER OF UNIFORM GLOW
 02/29/1996 – 05/31/1998 FY98: \$0 Total: \$153,685
Prin. Invest.: J R ROTH, D M SHERMAN
Tech. Officer: LARC/S P WILKINSON
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 5144 UNIVERSITY OF TENNESSEE – KNOXVILLE **8775**
A COM
 06/30/1995 – 09/15/1998 FY98: \$0 Total: \$79,741
Prin. Invest.: J STENNHOFF
Tech. Officer: ARC/F CARADONNA
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 5198 UNIVERSITY OF TENNESSEE – KNOXVILLE **8776**
PRELIMINARY ANALYSIS OF MANNED MARS MISSIONS
 12/17/1996 – 03/31/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: E LYNE
Tech. Officer: ARC/P WERCINSKI
CASE Category: 42 – ASTRONAUTICAL ENGR

NCC 2 5265 UNIVERSITY OF TENNESSEE – KNOXVILLE **8777**
THE STUDY OF HYBRID COMPUTATION METHODS FOR THE COMPUTATION OF ROTOR FLOWS AT LOW FLIGHT SPEEDS
 04/23/1998 – 02/28/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: J STEINHOFF
Tech. Officer: ARC/F CARDONNA
CASE Category: 41 – AERONAUTICAL ENGR

NCC 2 5274 UNIVERSITY OF TENNESSEE – KNOXVILLE **8778**
DEVELOPING INFORMATION POWER GRID BASED ALGORITHMS & SOFTWARE
 06/30/1998 – 10/31/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: J DONGARRA
Tech. Officer: ARC/S SAINI
CASE Category: 22 – COMPUTER SCIENCE

NCC 2 5284 UNIVERSITY OF TENNESSEE – KNOXVILLE **8779**
PERFORMANCE MODELING
 07/28/1998 – 10/31/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: J DONGARRA
Tech. Officer: ARC/S SAINI
CASE Category: 22 – COMPUTER SCIENCE

NCC 2 5285 UNIVERSITY OF TENNESSEE – KNOXVILLE **8780**
ALGORITHMS & LIBRARIES
 07/28/1998 – 10/31/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: J DONGARRA
Tech. Officer: ARC/S SAINI
CASE Category: 22 – COMPUTER SCIENCE

NCC 5 88 UNIVERSITY OF TENNESSEE – KNOXVILLE **8781**
CHAOSI UNDERSTANDING AND CONTROLLING LASER INSTABILITY
 05/03/1995 – 11/14/1998 FY98: \$20,000 Total: \$65,000
Prin. Invest.: W E BLASS
Tech. Officer: GSFC/G CHIN
CASE Category: 11 – ASTRONOMY

NGT 1 52138 UNIVERSITY OF TENNESSEE - KNOXVILLE **8782**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/26/1996 - 06/30/1999 FY98: \$12,000 Total: \$44,000
Prin. Invest.: C R RAMSEY, L W TOWNSEND
Tech. Officer: LARC/J W WILSON, LARC/F A CUCINOTTA
CASE Category: 13 - PHYSICS

NGT 5 50206 UNIVERSITY OF TENNESSEE - KNOXVILLE **8783**
EVALUATION OF CONSTRUCTED MICROBIAL COMMUNITIES AS INOCULA FOR BIOLOGICAL SUPPORT SYSTEMS
 07/09/1998 - 07/14/2001 FY98: \$22,000 Total: \$22,000
Prin. Invest.: G SAYLER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 61 - PSYCHOLOGY/BIOLOGY

NAG 9 19571 UNIVERSITY OF TENNESSEE - MEMPHIS **8784**
SERVICES/PAYLOAD SPECIALIST/NEUROLAB MISSION
 08/23/1996 - 07/03/1998 FY98: \$30,932 Total: \$255,932
Prin. Invest.: A DUNLAP
Tech. Officer: JSC/K NEWKIRK
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 3 1984 VANDERBILT UNIVERSITY **8785**
UNSEEDED SCALAR-VELOCITY MEASUREMENTS FOR PROPULSION FLOWS
 11/18/1996 - 11/06/1999 FY98: \$87,977 Total: \$174,514
Prin. Invest.: R W PITZ
Tech. Officer: LERC/R G SEASHOLTZ
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 3341 VANDERBILT UNIVERSITY **8786**
INNOVATION RESEARCH PROGRAM "DEVELOPMENT OF A TELEIMULATION OF A MICROSCOPIC ENVIRONMENT" HQNAGW-47
 11/02/1996 - 12/31/1998 FY98: \$70,722 Total: \$138,474
Prin. Invest.: M GOLDFARE
Tech. Officer: GSFC/V THORNE
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 5 4291 VANDERBILT UNIVERSITY **8787**
MONTE CARLO MODELS OF SCATTERED LIGHT FROM SOLAR SYSTEM LOW MASS STARS
 04/18/1997 - 08/31/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: D A WEINTRAUB
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4428 VANDERBILT UNIVERSITY **8788**
AN INFRARED SPECTROSCOPIC SURVEY OF ICY GRAINS IN CIRCUMSTELLAR ENVIRONMENTS OF YOUNG STARS
 05/06/1997 - 03/31/1999 FY98: \$17,000 Total: \$30,000
Prin. Invest.: D A WEINTRAUB
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 4988 VANDERBILT UNIVERSITY **8789**
MODEL ATMOSPHERES AND SPECTRA FOR EXTRASOLAR GIANT
 06/26/1997 - 06/14/1999 FY98: \$24,565 Total: \$35,217
Prin. Invest.: D SAUMON
Tech. Officer: GSFC/R BEEBE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7103 VANDERBILT UNIVERSITY **8790**
INVESTIGATION OF GROUND-BASED SINGLE EVENT EFFECTS: RELATIONSHIP TO SCALING, LOW-POWER, AND OTHER
 03/13/1998 - 03/31/1999 FY98: \$49,952 Total: \$49,952
Prin. Invest.: L MASSENGILL
Tech. Officer: GSFC/M M GATES
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 7556 VANDERBILT UNIVERSITY **8791**
A STUDY OF THE IONOSPHERE AS A SOURCE OF PLASMA FOR THE MAGNETOSPHERE
 06/25/1998 - 06/30/1999 FY98: \$70,000 Total: \$70,000
Prin. Invest.: E DAVID
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 99 - MULTI-INTERDISCIPLINARY, OTHER

NAG 8 275 VANDERBILT UNIVERSITY **8792**
MICROGRAVITY PROCESSING OF OXIDE SUPERCONDUCTORS
 05/30/1996 - 05/31/2000 FY98: \$100,000 Total: \$250,000
Prin. Invest.: W HOFMEISTER
Tech. Officer: MSFC/C R TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1298 VANDERBILT UNIVERSITY **8793**
FOR RESEARCH "MODEL-BASED TOOLS FOR REAL-TIME INSTRUMENTATION SYSTEMS"
 06/10/1996 - 06/23/1998 FY98: \$0 Total: \$50,962
Prin. Invest.: T A BAPTY
Tech. Officer: MSFC/T F ZOLADZ, MSFC/T R FIORUCCI
CASE Category: 22 - COMPUTER SCIENCE

NAGW 385 VANDERBILT UNIVERSITY **8794**
RELATIVE ABUNDANCE OF ICES IN THE DISKS OF T TAU STARS: IMPLICATIONS FOR COMET FORMATION
 02/16/1993 - 05/31/1997 FY98: \$0 Total: \$45,000
Prin. Invest.: D A WEINTRAUB
Tech. Officer: HQ/J A NUTH
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAGW 3764 VANDERBILT UNIVERSITY **8795**
INTERCOMPARTMENTAL FLUID SHIFTS IN RESPONSE TO POSTURAL AND GRAVITATIONAL FORCES
 10/06/1993 - 12/31/1996 FY98: \$0 Total: \$240,000
Prin. Invest.: F A GAFFNEY
Tech. Officer: HQ/F M SULZMAN
CASE Category: 13 - PHYSICS

NAGW 3154 VANDERBILT UNIVERSITY **8796**
VANDERBILT UNIVERSITY MEDICINE - ADRENORECEPTOR HYPERSENSITIVITY IN MODELS OF WEIGHTLESSNESS
 02/04/1997 - 09/30/1997 FY98: \$0 Total: \$359,905
Prin. Invest.: I BIAGGIONI
Tech. Officer: HQ/F M SULZMAN
CASE Category: 56 - MEDICAL

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| NAGW 3873 | VANDERBILT UNIVERSITY | 8797 | NGT 40021 | VANDERBILT UNIVERSITY | 8805 |
| NAGW-3873/B VANDERBILT UNIV. "THE SYMPATHETIC NERVOUS SYSTEM IN THE ANEMIA OF WEIGHTLESSNESS" | | | NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM ACTIVITIES OF TENNESSEE VALLEY AEROSPACE CORP. | | |
| 02/25/1994 - 10/30/1997 | FY98: -\$2 | Total: \$419,216 | 03/13/1990 - 01/31/1998 | FY98: \$0 | Total: \$2,582,276 |
| Prin. Invest.: D ROBERTSON | | | Prin. Invest.: H M STRAUSS | | |
| Tech. Officer: HQ/F M SULZMAN | | | Tech. Officer: HQ/E T SCHWARTZ | | |
| CASE Category: 56 - MEDICL | | | CASE Category: 99 - MULTI INTERDISCIPL, OTHER | | |
| NAGW 4723 | VANDERBILT UNIVERSITY | 8798 | NGT 51267 | VANDERBILT UNIVERSITY | 8806 |
| DEVELOPMENT OF A TELEMICROBOT FOR TELEMANIPULATION OF A MICROSCOPIC ENVIRONMENT | | | GRADUATE STUDENT RESEARCHERS PROGRAM | | |
| 08/31/1995 - 07/31/1997 | FY98: -\$56 | Total: \$80,944 | 06/14/1994 - 06/30/1997 | FY98: -\$3,066 | Total: \$62,934 |
| Prin. Invest.: M GOLDFARB | | | Prin. Invest.: R J BAYUZICK | | |
| Tech. Officer: HQ/M A SHEPANAK | | | Tech. Officer: HQ/G LESANE | | |
| CASE Category: 54 - ENVIRONMENTAL BIOLOGY | | | CASE Category: 47 - METAL & MATERIALS ENGR | | |
| NAGW 5020 | VANDERBILT UNIVERSITY | 8799 | NGT 51684 | VANDERBILT UNIVERSITY | 8807 |
| AN INFRARED SPECTROSCOPIC SURVEY | | | GRAD STUDENT RESEARCH PROGRAM | | |
| 04/01/1996 - 03/31/1998 | FY98: \$0 | Total: \$13,000 | 08/07/1996 - 02/28/1998 | FY98: \$0 | Total: \$22,000 |
| Prin. Invest.: D A WEINTRAUB | | | Prin. Invest.: M GOLDFARB | | |
| Tech. Officer: HQ/P ROGERS, HQ/J RAHE | | | Tech. Officer: HQ/G LESANE | | |
| CASE Category: 13 - PHYSICS | | | CASE Category: 46 - MECHANICAL ENGR | | |
| NAGW 5145 | VANDERBILT UNIVERSITY | 8800 | NGT 3 52316 | VANDERBILT UNIVERSITY | 8808 |
| MONTE CARLO MODELS OF SCATTERED LIGHT FROM SOLAR SYSTEM SIZED NEBULAE AROUND LOW MASS STARS | | | GRADUATE STUDENT RESEARCHERS PROGRAM | | |
| 08/23/1996 - 08/31/1997 | FY98: \$0 | Total: \$30,000 | 07/31/1996 - 06/30/1998 | FY98: \$16,000 | Total: \$44,000 |
| Prin. Invest.: D A WEINTRAUB | | | Prin. Invest.: R PITZ | | |
| Tech. Officer: HQ/P ROGERS | | | Tech. Officer: LERC/D MONTEGANI | | |
| CASE Category: 99 - MULTI INTERDISCIPL, OTHER | | | CASE Category: 46 - MECHANICAL ENGR | | |
| NAS 9 19483 | VANDERBILT UNIVERSITY | 8801 | NGT 5 40054 | VANDERBILT UNIVERSITY | 8809 |
| AUTONOMIC NEUROPHYSIOLOGY IN MICROGRAVITY | | | TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM. | | |
| 02/23/1996 - 10/31/1999 | FY98: \$231,000 | Total: \$594,000 | 02/12/1997 - 01/31/1999 | FY98: \$475,000 | Total: \$855,000 |
| Prin. Invest.: D ROBERTSON | | | Prin. Invest.: A M STRAUSS | | |
| Tech. Officer: JSC/A LEE | | | Tech. Officer: GSFC/L KEFFER | | |
| CASE Category: 59 - LIFE SCIENCE, OTHER | | | CASE Category: 99 - MULTI INTERDISCIPL, OTHER | | |
| NCC 2 992 | VANDERBILT UNIVERSITY | 8802 | NGT 5 50180 | VANDERBILT UNIVERSITY | 8810 |
| ADSORPTION EQUILIBRIUM FOR TRACE CONTAMINANT CONTROL AND INCINERATOR EXHAUST PURIFICATION | | | MINIMUM SURFACE EFFECT MICROACTUATOR FOR DEXTEROUS MICRO-MANIPULATION STUDENT: JAMES H. LIPSEY | | |
| 05/22/1997 - 11/30/1998 | FY98: \$58,100 | Total: \$131,700 | 11/25/1997 - 07/31/1999 | FY98: \$44,000 | Total: \$44,000 |
| Prin. Invest.: M D LEVAN | | | Prin. Invest.: M GOLDBARB | | |
| Tech. Officer: ARC/J E FINN | | | Tech. Officer: HQ/A NURRIDIN | | |
| CASE Category: 43 - CHEMICAL ENGR | | | CASE Category: 59 - LIFE SCIENCE, OTHER | | |
| NCC 8 91 | VANDERBILT UNIVERSITY | 8803 | NGT 5 50209 | VANDERBILT UNIVERSITY | 8811 |
| INVESTIGATION OF THE RELATIONSHIP BETWEEN UNDER COOLING AND SOLIDIFICATION VELOCITY | | | INVESTIGATION OF EFFECTS OF DILUTE OXYGEN SOLUTE ON NUCLEATION OF ZIRCONIUM | | |
| 05/09/1996 - 01/31/1999 | FY98: \$110,000 | Total: \$302,500 | 07/10/1998 - 06/30/1999 | FY98: \$22,000 | Total: \$22,000 |
| Prin. Invest.: R J BAYVZICK | | | Prin. Invest.: R BAYUZICK | | |
| Tech. Officer: MSFC/A DE LOACH | | | Tech. Officer: HQ/A NURRIDIN | | |
| CASE Category: 47 - METAL & MATERIALS ENGR | | | CASE Category: 43 - CHEMICAL ENGR | | |
| NCC 8 101 | VANDERBILT UNIVERSITY | 8804 | NGT 5 50212 | VANDERBILT UNIVERSITY | 8812 |
| EXPERIMENT ON NUCLEATION IN DIFFERENT FLOW REGIMES | | | RELIABILITY ASSURANCE OF AEROSPACE STRUCTURES STUDENT - ANDREW M. STOEBCNER | | |
| 05/28/1996 - 10/31/1998 | FY98: \$66,000 | Total: \$601,667 | 07/15/1998 - 08/31/1999 | FY98: \$21,990 | Total: \$21,990 |
| Prin. Invest.: R J BAYVZICK | | | Prin. Invest.: S MAHADEVAN | | |
| Tech. Officer: MSFC/J BRUNSON | | | Tech. Officer: GSFC/R M WEINSTOCK | | |
| CASE Category: 47 - METAL & MATERIALS ENGR | | | CASE Category: 49 - ENGINEERING, OTHER | | |

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| NGT 8 52809 | VANDERBILT UNIVERSITY | 8813 |
| RESEARCH PROGRAM | | |
| 08/23/1995 - 07/31/1998 | FY98: -\$19,927 | Total: \$46,073 |
| Prin. Invest.: D GARCIA | | |
| Tech. Officer: MSFC/H WAITES, JPL/B BADA | | |
| CASE Category: 46 - MECHANICAL ENGR | | |
| NGT 8 52828 | VANDERBILT UNIVERSITY | 8814 |
| GRAD STUDENT RESEARCH PROGRAM FOR MARC SAMUELSON | | |
| 09/25/1996 - 12/31/1998 | FY98: \$11,000 | Total: \$55,000 |
| Prin. Invest.: M N SAMUELSON | | |
| Tech. Officer: MSFC/H WAITES | | |
| CASE Category: 49 - ENGINEERING, OTHER | | |
| NGT 8 52839 | VANDERBILT UNIVERSITY | 8815 |
| R/S "GRADUATE STUDENT RESEARCH PROGRAM" FELLOWSHIP | | |
| 07/23/1997 - 07/31/1999 | FY98: \$22,000 | Total: \$44,000 |
| Prin. Invest.: M GOLDFARB | | |
| Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT | | |
| CASE Category: 46 - MECHANICAL ENGR | | |
| NGT 8 52852 | VANDERBILT UNIVERSITY | 8816 |
| RELIABILITY METHODS FOR AEROSPACE STRUCTURES | | |
| 07/01/1998 - 06/30/2000 | FY98: \$21,518 | Total: \$21,518 |
| Prin. Invest.: S MAHADEVAN | | |
| Tech. Officer: MSFC/J F DOWDY | | |
| CASE Category: 49 - ENGINEERING, OTHER | | |
| NGT 8 52857 | VANDERBILT UNIVERSITY | 8817 |
| SCALED FORCE REFLECTIVE TELEMANNIPULATION FOR ONBOARD DES-TERIOUS MANIPULATION OF MICROGRAVITY | | |
| 07/23/1998 - 08/13/2000 | FY98: \$22,000 | Total: \$22,000 |
| Prin. Invest.: M GOLDFARB | | |
| Tech. Officer: MSFC/J F DOWDY | | |
| CASE Category: 46 - MECHANICAL ENGR | | |
| NGT 8 52859 | VANDERBILT UNIVERSITY | 8818 |
| INTEGRATION OF HAPTIC FEEDBACK INTO VIRTUAL ENVIRONMENTS FOR MISSION OPERATION APPLICATION | | |
| 07/23/1998 - 08/13/2000 | FY98: \$22,000 | Total: \$22,000 |
| Prin. Invest.: M GOLDFARB | | |
| Tech. Officer: MSFC/J F DOWDY | | |
| CASE Category: 46 - MECHANICAL ENGR | | |
| NAG 8 1387 | BAYLOR COLLEGE OF MEDICINE | 8821 |
| FOR RESEARCH ENTITLED: "TWO DIMENSIONAL CRYSTAL GROWTH IN MICROGRAVITY" | | |
| 06/23/1997 - 12/23/1998 | FY98: \$116,720 | Total: \$245,716 |
| Prin. Invest.: T G WENSEL | | |
| Tech. Officer: MSFC/C TALLEY | | |
| CASE Category: 19 - PHYSICAL SCIENCE, OTHER | | |
| NAG 9 052 | BAYLOR COLLEGE OF MEDICINE | 8822 |
| BIOPHYSICAL MODELS OF DNA DAMAGE, MUTATION, &... | | |
| 08/25/1998 - 08/31/1999 | FY98: \$50,000 | Total: \$50,000 |
| Prin. Invest.: L E PETERSON | | |
| Tech. Officer: JSC/F A CUCINOTTA | | |
| CASE Category: 59 - LIFE SCIENCE, OTHER | | |
| NAGW 1437 | BAYLOR COLLEGE OF MEDICINE | 8823 |
| PHYSIOLOGICAL MONITORING WITH MAGNETIC RESONANCE IMAGING | | |
| 05/04/1995 - 09/30/1997 | FY98: \$0 | Total: \$396,519 |
| Prin. Invest.: A LEBLANC | | |
| Tech. Officer: HQ/V THORNE | | |
| CASE Category: 56 - MEDICL | | |
| NAGW 1993 | BAYLOR COLLEGE OF MEDICINE | 8824 |
| A MODEL FOR DOWN REGULATION OF ERYTHROPOIESIS IN SPACE | | |
| 03/20/1996 - 09/30/1998 | FY98: \$0 | Total: \$130,000 |
| Prin. Invest.: C P ALFREY, M.D., PH | | |
| Tech. Officer: HQ/V SCHNEIDER | | |
| CASE Category: 56 - MEDICL | | |
| NAS 9 18152 | BAYLOR COLLEGE OF MEDICINE | 8825 |
| MAGNETIC RESONANCE IMAGING AFTER EXPOSURE TO MICRO GRAVITY | | |
| 07/28/1993 - 09/15/1997 | FY98: \$0 | Total: \$352,006 |
| Prin. Invest.: A D LEBLANC | | |
| Tech. Officer: JSC/A L PLAZA | | |
| CASE Category: 56 - MEDICL | | |
| NAS 9 19104 | BAYLOR COLLEGE OF MEDICINE | 8826 |
| MAGNETIC RESONANCE IMAGING AFTER EXPOSURE TO MICRO GRAVITY | | |
| 09/25/1991 - 09/30/1998 | FY98: \$226,696 | Total: \$820,136 |
| Prin. Invest.: A LEBLANC | | |
| Tech. Officer: JSC/C M BUNTIN | | |
| CASE Category: 56 - MEDICL | | |
| NCC 9 51 | BAYLOR COLLEGE OF MEDICINE | 8827 |
| NATIONAL SPACE BIOMEDICAL RESEARCH INSTITUTE | | |
| 03/26/1997 - 09/30/2002 | FY98: \$12,480,654 | Total: \$15,989,431 |
| Prin. Invest.: B R ALFORD, M.D. | | |
| Tech. Officer: JSC/C F SAWIN | | |
| CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) | | |
| NCC 9 61 | BAYLOR COLLEGE OF MEDICINE | 8828 |
| PREVENTION OF BED REST OSTEOPOROSIS | | |
| 05/23/1997 - 05/23/2001 | FY98: \$585,749 | Total: \$1,220,512 |
| Prin. Invest.: A D SHACKELTON | | |
| Tech. Officer: MSFC/L C SHACKETON | | |
| CASE Category: 56 - MEDICL | | |

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| NAG 5 3712 | BAYLOR COLLEGE OF MEDICINE | 8819 |
| ESTABLISHMENT OF THREE DIMENSIONAL PRIMARY HUMAN H MICROGRAVITY ENVIRONMENT | | |
| 12/11/1996 - 09/30/1998 | FY98: \$136,378 | Total: \$268,886 |
| Prin. Invest.: D YOFFE | | |
| Tech. Officer: GSFC/B CARPENTER | | |
| CASE Category: 59 - LIFE SCIENCE, OTHER | | |
| NAG 8 1383 | BAYLOR COLLEGE OF MEDICINE | 8820 |
| FOR RESEARCH ENTITLED "LIVER TISSUE ENGINEERING IN MICROGRAVITY ENVIRONMENT" | | |
| 06/26/1997 - 11/30/1998 | FY98: \$73,000 | Total: \$157,000 |
| Prin. Invest.: B YOFFE | | |
| Tech. Officer: MSFC/C R TALLEY | | |
| CASE Category: 56 - MEDICL | | |

NAG 5 3776 JARVIS CHRISTIAN COLLEGE **8829**
**PACE AWARD. PRECOLLEGE AWARDS FOR EXCELLENCE IN MA GINEER-
 ING AND TECHNOLOGY**
 02/25/1997 – 11/30/1998 FY98: \$100,000 Total: \$200,000
Prin. Invest.: M MCKINNEY
Tech. Officer: GSFC/M STOUTSENBERER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 9 772 LAMAR UNIVERSITY **8830**
**COMPREHENSIVE SPACE SCIENCE & TECHNOLOGY EDUCATION PRO-
 GRAM TO MOTIVATE K-12 STUDENTS**
 03/06/1997 – 03/01/1999 FY98: \$0 Total: \$229,000
Prin. Invest.: A V MURALI
Tech. Officer: JSC/D P BLANCHARD
CASE Category: 21 – MATHEMATICS

NAG 9 884 LAMAR UNIVERSITY **8831**
**LAB TEST OF INSTRUMENTATION INTENDED FOR REMOTE REGOLITH
 STUDIES**
 07/12/1996 – 07/31/1998 FY98: \$0 Total: \$52,500
Prin. Invest.: D JORDAN
Tech. Officer: JSC/D MCKAY
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 8 1221 LE TOURNEAU COLLEGE **8832**
JOVE
 11/30/1995 – 08/31/1998 FY98: \$0 Total: \$75,000
Prin. Invest.: D FORD, G ANDREWS
Tech. Officer: MSFC/D SIX
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 3494 MCMURRY UNIVERSITY **8833**
ULTRASOFT SURVEY OF THE EINSTEIN (HEAO-2) IMAGING DATABASE
 11/26/1996 – 11/30/1998 FY98: \$1,700 Total: \$14,800
Prin. Invest.: R J THOMPSON
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 9 976 OUR LADY OF THE LAKE UNIVERSITY **8834**
SPACE AND GEOSCIENCE PROJECT
 09/25/1997 – 07/31/1999 FY98: \$32,860 Total: \$226,367
Prin. Invest.: J KUEKER
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 2 1154 PRAIRIE VIEW A&M UNIVERSITY **8835**
**STUDY OF RADIATION EFFECTS ON INFRARED DETECTORS & MATERIALS
 FOR SPACE-BASED ASTRONOMY APPLICATIONS**
 08/27/1997 – 08/31/1999 FY98: \$0 Total: \$129,532
Prin. Invest.: R T WILKINS
Tech. Officer: ARC/C R MCCREIGHT, ARC/G S LEE
CASE Category: 13 – PHYSICS

NAG 3 2065 PRAIRIE VIEW A&M UNIVERSITY **8836**
**RADIATION EFFECTS ON DC-DC CONVERTERS RADIATION EFFECTS ON
 DC-DC CONVERTER**
 08/01/1997 – 06/30/1999 FY98: \$199,826 Total: \$393,714
Prin. Invest.: J O ATTIA, R SCHRIMPF, K F GALLOWAY
Tech. Officer: LERC/M D KANKAM
CASE Category: 45 – ELECTRICAL ENGR

NAG 4 129 PRAIRIE VIEW A&M UNIVERSITY **8837**
**STUDY OF RADIATION EFFECTS ON ELECTRONICS AT HIGH
 ATMOSPHERIC ALTITUDES**
 05/15/1997 – 12/31/1997 FY98: -\$48 Total: \$24,952
Prin. Invest.: R WILKINS, T FOGARTY
Tech. Officer: DFRC/K KLOSSEL, LARC/J W WILSON
CASE Category: 41 – AERONAUTICAL ENGR

NAG 4 148 PRAIRIE VIEW A&M UNIVERSITY **8838**
RADIATION EFFECTS ON ELECTRONIC MATERIAL AND DEVICES
 03/03/1998 – 02/27/2001 FY98: \$90,000 Total: \$90,000
Prin. Invest.: R WILKINS
Tech. Officer: DFRC/E COX
CASE Category: 41 – AERONAUTICAL ENGR

NAG 5 2317 PRAIRIE VIEW A&M UNIVERSITY **8839**
THE PLASMA CONFIGURATION OF NEPTUNE'S MAGNETOSPHERE
 07/28/1993 – 08/14/1998 FY98: \$0 Total: \$408,000
Prin. Invest.: T S HUANG
Tech. Officer: GSFC/R E HARTLE
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 5130 PRAIRIE VIEW A&M UNIVERSITY **8840**
**STUDY OF RADIATION EFFECTS ON ELECTRONIC DEVICES AT HIGH
 ATMOSPHERE ALTITUDES**
 07/02/1997 – 12/31/1998 FY98: \$0 Total: \$33,941
Prin. Invest.: R WILKINS
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 – PHYSICS

NAG 5 6823 PRAIRIE VIEW A&M UNIVERSITY **8841**
**ENHANCEMENT OF TEXGEO, PVAMU TO BE A CENTER OF EXCELLENCE
 IN APPLICATIONS OF REMOTE SENSING TO REGI**
 01/30/1998 – 12/31/1998 FY98: \$53,308 Total: \$53,308
Prin. Invest.: S H SHAKIR
Tech. Officer: GSFC/M WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 8 1334 PRAIRIE VIEW A&M UNIVERSITY **8842**
**R/S #RF97-00112 "COMBUSTION CFD TECHNOLOGY STUDY FOR
 ADVANCED AIRBREATHING PROPULSION SYSTEMS"**
 02/12/1997 – 02/28/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: Z HGGUE
Tech. Officer: MSFC/P K MC CONNAUGHEY
CASE Category: 49 – ENGINEERING, OTHER

NAG 8 1338 PRAIRIE VIEW A&M UNIVERSITY **8843**
**ESTABLISHMENT OF A SOLAR OBSERVATORY AND STUDIES ON THE
 SOLAR ATMOSPHERE**
 03/18/1997 – 07/07/1999 FY98: \$87,812 Total: \$177,146
Prin. Invest.: T HUANG
Tech. Officer: MSFC/J M DAVIS
CASE Category: 11 – ASTRONOMY

NAG 9 631 PRAIRIE VIEW A&M UNIVERSITY **8844**
FLOW BOILING ENHANCEMENT FOR THERMAL MNGT SYSTEMS
 09/01/1992 – 12/31/1997 FY98: -\$2,074 Total: \$484,226
Prin. Invest.: W HARWELL
Tech. Officer: JSC/W D HARWELL
CASE Category: 13 – PHYSICS

NAG 9 777 PRAIRIE VIEW A&M UNIVERSITY **8845**
FUZZY EXPERT SYSTEM FOR FAULT MNGT OF WATER SUPPLY AND RECOVERY IN ALSS PROJECT
 05/15/1995 - 08/31/1997 FY98: \$0 Total: \$60,000
Prin. Invest.: J LI
Tech. Officer: JSC/R E ECKEL KAMP
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 5 115 PRAIRIE VIEW A&M UNIVERSITY **8853**
ESTABLISHMENT OF A NASA SOUTHWEST REGIONAL NETWORK RESOURCES TRAINING SITE
 08/15/1995 - 09/14/1999 FY98: \$145,000 Total: \$1,835,000
Prin. Invest.: J R WILLIAMS
Tech. Officer: GSFC/J BENNETT
CASE Category: 22 - COMPUTER SCIENCE

NAG 9 778 PRAIRIE VIEW A&M UNIVERSITY **8846**
LUNAR OUTPOST CONSTRUCTION AND RADIATION PROTECTION
 04/04/1995 - 01/01/1999 FY98: \$0 Total: \$30,000
Prin. Invest.: R RADHARKRISHMAN
Tech. Officer: JSC/J CONNOLLY
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NCC 9 40 PRAIRIE VIEW A&M UNIVERSITY **8854**
RESEARCH ON KA BAND
 07/28/1995 - 07/31/1997 FY98: -\$11,067 Total: \$113,933
Prin. Invest.: C TOLLIVER, D BONDYOPADHYAY(BOND)
Tech. Officer: JSC/D D ARNDT
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 779 PRAIRIE VIEW A&M UNIVERSITY **8847**
MICROWAVE IMAGING OF METAL OBJECTS
 04/06/1995 - 05/31/1998 FY98: \$0 Total: \$146,000
Prin. Invest.: C L TOLLIVER, J LI
Tech. Officer: JSC/K KRISTEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 9 50 PRAIRIE VIEW A&M UNIVERSITY **8855**
TRANSFERRED FROM HQ (NCCW-0086) & INCR FUND
 02/13/1997 - 06/30/1999 FY98: \$956,643 Total: \$2,866,803
Prin. Invest.: T N FOGARTY
Tech. Officer: JSC/J D ATKINSON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 878 PRAIRIE VIEW A&M UNIVERSITY **8848**
ORBITAL DEBRIS RESEARCH CENTER
 09/26/1996 - 12/31/1998 FY98: \$340,000 Total: \$710,000
Prin. Invest.: S B LIN
Tech. Officer: JSC/G CRESS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 9 66 PRAIRIE VIEW A&M UNIVERSITY **8856**
SOFTWARE ENGINEERING INITIATIVE
 09/25/1997 - 12/31/1999 FY98: \$223,984 Total: \$447,968
Prin. Invest.: J D OLIVER
Tech. Officer: JSC/L MCWHORTER, JSC/K MARTINDALE
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 926 PRAIRIE VIEW A&M UNIVERSITY **8849**
BONE CONDUCTION HEADSET DEVELOPMENT
 01/31/1997 - 07/30/1998 FY98: \$0 Total: \$96,918
Prin. Invest.: A KUMARN
Tech. Officer: JSC/E BURRELL
CASE Category: 41 - AERONAUTICAL ENGR

NCCW 86 PRAIRIE VIEW A&M UNIVERSITY **8857**
CENTER FOR APPLIED RADIATION RESEARCH (CARR)
 08/04/1995 - 06/30/2000 FY98: \$0 Total: \$2,003,775
Prin. Invest.: T N FOGARTY
Tech. Officer: HQ/B L WHITE
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG13 46 PRAIRIE VIEW A&M UNIVERSITY **8850**
TEXAS GULF COAST ENVIRONMENTAL DATA CENTER SAME
 10/04/1995 - 12/17/1998 FY98: \$150,601 Total: \$270,125
Prin. Invest.: S SHAKIR
Tech. Officer: SSC/A JOYCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1976 RICE UNIVERSITY **8858**
NUMERICAL SIMULATION OF RECEPTIVITY FOR A TRANSITION EXPERIMENT
 12/01/1997 - 11/30/1998 FY98: \$34,601 Total: \$34,601
Prin. Invest.: S S COLLIS
Tech. Officer: LARC/R D JOSLIN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 475 PRAIRIE VIEW A&M UNIVERSITY **8851**
LOW COST, WIDE BANDWIDTH, AND HIGH GAIN MICROSTRIP ANTENNA ARRAY FOR SATELITE AND PERSONAL COMMUNICATIONS
 05/20/1996 - 11/30/1998 FY98: \$28,761 Total: \$99,097
Prin. Invest.: D LI, D F LEE
Tech. Officer: LERC/R Q LEE
CASE Category: 45 - ELECTRICAL ENGR

NAG 2 1112 RICE UNIVERSITY **8859**
QUANTUM MECHANICAL MODELING OF CARBON NANOSTRUCTURES
 02/07/1997 - 12/31/1998 FY98: \$73,442 Total: \$161,141
Prin. Invest.: G E SCUSERIA
Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 3 577 PRAIRIE VIEW A&M UNIVERSITY **8852**
RESEARCH TO SIGNIFICANTLY ENHANCE COMPOSITES SURVIVABILITY AT 550 DEGREES F IN OXIDATIVE ENVIRONMENT
 09/26/1997 - 08/31/2000 FY98: \$0 Total: \$100,000
Prin. Invest.: L E CARSON-ISABELLE
Tech. Officer: LERC/M A MEADOR
CASE Category: 12 - CHEMISTRY

NAG 2 1181 RICE UNIVERSITY **8860**
COMPILER TECHNOLOGY EFFECTIVE PARALLELIZATION OF NASA CODES
 02/27/1998 - 01/31/1999 FY98: \$85,517 Total: \$85,517
Prin. Invest.: J MELLOR-CRUMMEY
Tech. Officer: ARC/A GRADY-HISER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1851 RICE UNIVERSITY **8861**
COLLISIONAL FREQUENCY SHIFTS NEAR A ZERO ENERGY RESONANCE
 05/06/1996 – 05/05/1999 FY98: \$31,000 Total: \$150,000
Prin. Invest.: P G MULET
Tech. Officer: LERC/B S SINGH
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 1195 RICE UNIVERSITY **8862**
STUDY OF THE SOLAR WIND INTERACTIVE WITH MARS
 08/01/1989 – 10/31/1998 FY98: \$0 Total: \$153,711
Prin. Invest.: P A CLOUTIER
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 – PHYSICS

NAG 5 1626 RICE UNIVERSITY **8863**
HUBBLE SPACE TELESCOPE RESEARCH
 06/07/1991 – 10/31/1999 FY98: \$40,000 Total: \$1,805,927
Prin. Invest.: C R O'DELL
Tech. Officer: GSFC/S SOBIESKI
CASE Category: 11 – ASTRONOMY

NAG 5 2215 RICE UNIVERSITY **8864**
PEACE INVESTIGATION FOR CLUSTER MISSION
 02/17/1993 – 02/28/1998 FY98: \$0 Total: \$245,015
Prin. Invest.: P H REIFF
Tech. Officer: GSFC/M L GOLDSTEIN
CASE Category: 13 – PHYSICS

NAG 5 2689 RICE UNIVERSITY **8865**
CREATING THE PUBLIC CONNECTION: INTERACTIVE EXPERIENCES WITH REAL-TIME EARTH AND SPACE SCIENCE
 08/24/1994 – 12/31/1998 FY98: \$55,000 Total: \$915,163
Prin. Invest.: P REIF
Tech. Officer: GSFC/N LAL
CASE Category: 11 – ASTRONOMY

NAG 5 2736 RICE UNIVERSITY **8866**
NATIONAL SOFTWARE EXCHANGE FOR THE HIGH PERFORMANCE COMPUTING COMMUNICATIONS PROGRAM
 09/22/1994 – 03/31/1999 FY98: \$909,940 Total: \$4,187,500
Prin. Invest.: K KENNEDY
Tech. Officer: GSFC/J R FISCHER
CASE Category: 22 – COMPUTER SCIENCE

NAG 5 3045 RICE UNIVERSITY **8867**
PLATE MOTION REGIONAL DEFORMATION AND TIME VARIATION OF PLATE MOTION FROM STUDIES INTEGRATING
 08/21/1995 – 03/31/1998 FY98: \$0 Total: \$138,026
Prin. Invest.: R GORDON
Tech. Officer: GSFC/B BILLS
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 3070 RICE UNIVERSITY **8868**
NUMERICAL SIMULATION OF ACTIVE PULSARS
 09/14/1995 – 09/14/1998 FY98: \$0 Total: \$210,000
Prin. Invest.: F C MICHEL
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3216 RICE UNIVERSITY **8869**
DATA ANALYSIS FOR POLAR MAGNETIC FIELD EXPERIMENT
 04/26/1996 – 10/31/1998 FY98: \$25,000 Total: \$125,000
Prin. Invest.: P H REIFF
Tech. Officer: GSFC/R A HOFFMAN
CASE Category: 13 – PHYSICS

NAG 5 3353 RICE UNIVERSITY **8870**
ISO STUDY OF SOFT GAMMA-RAY REPEATER COUNTERPARTS
 08/09/1996 – 08/14/1998 FY98: \$0 Total: \$9,000
Prin. Invest.: I A SMITH
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3824 RICE UNIVERSITY **8871**
STUDY OF SOFT GAMMA RAY REPEATERS
 01/29/1997 – 02/14/1999 FY98: \$62,609 Total: \$176,840
Prin. Invest.: E P LIANG
Tech. Officer: GSFC/JP NORRIS
CASE Category: 11 – ASTRONOMY

NAG 5 4055 RICE UNIVERSITY **8872**
NUMERICAL SIMULATION OF HIGH ENERGY EMISSIONS FROM
 03/11/1997 – 03/14/1999 FY98: \$94,000 Total: \$184,000
Prin. Invest.: E T LIANG
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4072 RICE UNIVERSITY **8873**
NASA SPECIALIZED CENTER OF RESEARCH AND TRAINING (AL BIOLOGY
 04/07/1997 – 02/28/1999 FY98: \$437,785 Total: \$1,281,352
Prin. Invest.: L MCINTIRE
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 4267 RICE UNIVERSITY **8874**
COMPREHENSIVE COMPUTATIONAL MODEL OF THE EARTH'S R
 03/25/1997 – 05/14/1999 FY98: \$23,505 Total: \$73,505
Prin. Invest.: D A WOLF
Tech. Officer: GSFC/J BOHLIN
CASE Category: 13 – PHYSICS

NAG 5 4726 RICE UNIVERSITY **8875**
DEVELOPMENT AND APPLICATIONS OF A MODULAR MODEL OF MAGNETOSPHERE
 06/19/1997 – 05/14/1999 FY98: \$41,157 Total: \$127,684
Prin. Invest.: D R TOFFOLETTO
Tech. Officer: GSFC/D EVANS
CASE Category: 13 – PHYSICS

NAG 5 4822 RICE UNIVERSITY **8876**
THE OPEN POLAR CAP: COMPARISON OF POLAR IMAGES WITH
 06/17/1997 – 06/14/1999 FY98: \$96,000 Total: \$188,000
Prin. Invest.: D W HILL
Tech. Officer: GSFC/J GREBOWSKY
CASE Category: 13 – PHYSICS

NAG 5 4909 RICE UNIVERSITY **8877**
A PROCESS LEVEL STUDY OF METHANE EMISSIONS FROM RICE
 06/19/1997 – 03/31/1999 FY98: \$0 Total: \$170,738
Prin. Invest.: R L SASS
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4958 RICE UNIVERSITY **8878**
"GROUND MEASUREMENTS IN SUPPORT OF BIOSAR EXPERIMENT
 07/15/1997 - 06/30/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: P HARCUMBE
Tech. Officer: GSFC/M IMHOFF
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6411 RICE UNIVERSITY **8879**
XTE A02 - VARIABILITY AND SPECTRAL EVOLUTION OF GRS 1758-258 AND 1E 1740.7-2942
 10/24/1997 - 10/31/1998 FY98: \$20,000 Total: \$20,000
Prin. Invest.: E LIANG, NONE
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 6432 RICE UNIVERSITY **8880**
MAGNETOSPHERIC CONVECTION AT JUPITER & SATURN
 10/14/1997 - 07/14/1999 FY98: \$91,334 Total: \$91,334
Prin. Invest.: D HILL
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7037 RICE UNIVERSITY **8881**
SOLAR WIND INTERACTION AT VENUS TO MARS, INCLUDING THE MAGNETIC EFFECTS OF THE MARTIAN CRUSTAL MAGNETIC FIELD
 02/20/1998 - 02/28/1999 FY98: \$48,978 Total: \$48,978
Prin. Invest.: P A CLOUTIER
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 7041 RICE UNIVERSITY **8882**
A VECTOR POTENTIAL MODEL FOR MARTIAN CRUSTAL MAGNETIC ANOMALIES
 03/02/1998 - 02/28/1999 FY98: \$68,051 Total: \$68,051
Prin. Invest.: P A CLOUTIER
Tech. Officer: GSFC/M H ACUNA
CASE Category: 13 - PHYSICS

NAG 5 7642 RICE UNIVERSITY **8883**
XTE PROPOSAL-ECHO TOMOGRAPHY OF LOW MASS X-RAY BINARIES
 08/27/1998 - 08/31/1998 FY98: \$2,243 Total: \$2,243
Prin. Invest.: R H GOMER
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 8 1232 RICE UNIVERSITY **8884**
RESEARCH, NOVEL NONLINEAR OPTICAL POLYDIACETYLENES POSSESSING LIQUID CRYSTALLINE PROPERTIES
 09/20/1996 - 09/19/1998 FY98: \$0 Total: \$14,983
Prin. Invest.: N HALES, W E BILLUPS
Tech. Officer: MSFC/D O FRAZIER, MSFC/B O PENN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1444 RICE UNIVERSITY **8885**
A QUANTUM DEGENERATE FERMI GAS OF 6LI ATOMS
 02/11/1998 - 01/31/2001 FY98: \$57,000 Total: \$57,000
Prin. Invest.: R G HULET
Tech. Officer: MSFC/J W POE
CASE Category: 13 - PHYSICS

NAG 8 1467 RICE UNIVERSITY **8886**
INFLUENCE OF REDUCED GRAVITY CONDITIONS ON THE OPTIMIZED GROWTH AND DEPOSITION OF METAL NANOSHELL
 03/06/1998 - 01/31/2002 FY98: \$43,333 Total: \$43,333
Prin. Invest.: N J HALAS
Tech. Officer: MSFC/C L TALLEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 929 RICE UNIVERSITY **8887**
EVALUATION OF ADVANCED MATERIALS FOR HYPERVELOCITY IMPACT SHIELDING PHASE I
 05/20/1997 - 05/20/1999 FY98: \$0 Total: \$66,046
Prin. Invest.: Y C ANGEL
Tech. Officer: JSC/J L CREWS
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

NAG 9 948 RICE UNIVERSITY **8888**
ANALYTICAL MODELING OF A CRYOGENIC TANK
 07/07/1997 - 12/30/1998 FY98: \$76,082 Total: \$126,953
Prin. Invest.: Y BAYAZITOGLU
Tech. Officer: JSC/T A PETERS
CASE Category: 46 - MECHANICAL ENGR

NAG 9 978 RICE UNIVERSITY **8889**
DEVELOPMENT OF PLASMA INJECTOR FOR VSIPR
 10/17/1997 - 09/30/1999 FY98: \$70,412 Total: \$70,412
Prin. Invest.: A A CHAN
Tech. Officer: JSC/F CHANG-DIAZ
CASE Category: 13 - PHYSICS

NAG 9 049 RICE UNIVERSITY **8890**
LASER ABSORPTION SENSORS
 08/04/1998 - 08/05/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: F K TITTEL
Tech. Officer: HQ/D L JAN
CASE Category: 45 - ELECTRICAL ENGR

NAGW 1655 RICE UNIVERSITY **8891**
MAGNETOSPHERIC AND AURORAL PROCESSES
 02/24/1999 - 12/31/1997 FY98: -\$12 Total: \$825,288
Prin. Invest.: P H REIFF
Tech. Officer: HQ/M M MELLOTT, HQ/T W PERRY
CASE Category: 13 - PHYSICS

NAGW 4004 RICE UNIVERSITY **8892**
"MEASUREMENT OF ELECTRON IMPACT CROSS SECTIONS OF IMPORTANCE"
 05/09/1994 - 12/31/1997 FY98: \$0 Total: \$238,916
Prin. Invest.: K SMITH
Tech. Officer: HQ/M M MELLOTT, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NAGW 4035 RICE UNIVERSITY **8893**
NUMERICAL SIMULATION OF POTENTIAL-DRIVEN PLASMA TRANSPORT IN THE JOVIAN MAGNETOSPHERE
 06/03/1994 - 12/31/1997 FY98: -\$75 Total: \$178,925
Prin. Invest.: R A WOLF
Tech. Officer: HQ/E C WHIPPLE, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

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NAGW 4173 RICE UNIVERSITY **8894**
GEOCHEMISTRY AND COSMOCHEMISTRY OF FULLERNESS
 10/18/1994 – 06/30/1998 FY98: \$0 Total: \$14,976
Prin. Invest.: D HEYMANN
Tech. Officer: HQ/J BOYCE
CASE Category: 11 – ASTRONOMY

NAGW 4635 RICE UNIVERSITY **8895**
A PROCESS LEVEL STUDY OF METHANE EMISSIONS FROM RICE FIELDS
 07/31/1995 – 10/31/1998 FY98: \$0 Total: \$370,280
Prin. Invest.: R L SASS, F M FISHER
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4685 RICE UNIVERSITY **8896**
WORKSHOPS ON REGIONAL ASSESSMENT OF TRACE
 08/16/1995 – 06/30/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: R L SASS
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 5007 RICE UNIVERSITY **8897**
NASA SPECIALIZED CENTER OF RESEARCH
 03/20/1996 – 05/31/1997 FY98: \$0 Total: \$867,248
Prin. Invest.: L V MCINTIRE, PH.D.
Tech. Officer: HQ/V THORNE
CASE Category: 11 – ASTRONOMY

NAS 3 97017 RICE UNIVERSITY **8898**
NRA-INTERFACIAL CONTROL OF HIGH TEMPERATURE FIBER/ MATRIX COMPOSITES VIA NOVEL PRECURSOR CHEMISTRY
 11/27/1996 – 11/26/1998 FY98: \$88,077 Total: \$147,817
Prin. Invest.: A R BARRON, D L CALLAHAN *Prin. Invest.:* NONE
Tech. Officer: LERC/S FARMER
CASE Category: 12 – CHEMISTRY

NAS 9 19553 RICE UNIVERSITY **8899**
COMPACT MID-INFRARED LASER BASED SENSORS FOR TRACE GAS DETECTION
 06/01/1996 – 12/31/1998 FY98: \$0 Total: \$330,882
Prin. Invest.: F TITTLE
Tech. Officer: JSC/H E DAVIS
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 1 234 RICE UNIVERSITY **8900**
AUTOMATED ADJOINT GENERATION MY 1/3
 07/03/1996 – 11/30/1998 FY98: \$73,961 Total: \$173,940
Prin. Invest.: A CARLE
Tech. Officer: LARC/L L GREEN
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NCC 1 236 RICE UNIVERSITY **8901**
INCREMENTAL ITERATIVE SENSITIVITIES FOR PVM- OVERFLOW
 07/17/1996 – 07/16/1998 FY98: \$2 Total: \$49,980
Prin. Invest.: A CARLE, M FAGAN
Tech. Officer: LARC/L L GREEN
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NCC 2 5199 RICE UNIVERSITY **8902**
ORION NEBULA AND PLANETARY NEBULAE
 12/19/1996 – 08/31/1998 FY98: \$0 Total: \$14,519
Prin. Invest.: R J DUFOUR
Tech. Officer: ARC/D GOORVITCH
CASE Category: 11 – ASTRONOMY

NCC 5 311 RICE UNIVERSITY **8903**
MUSEUMS TEACHING PLANET EARTH(UTPE)
 04/11/1998 – 02/28/2001 FY98: \$293,000 Total: \$293,000
Prin. Invest.: P REIFF
Tech. Officer: GSFC/A TUYAHOV
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 51186 RICE UNIVERSITY **8904**
GRADUATE STUDENT RESEARCHERS PROGRAM
 09/29/1993 – 01/01/1997 FY98: -\$45 Total: \$65,955
Prin. Invest.: P A CLOUTIER
Tech. Officer: GSFC/M BURRELL
CASE Category: 13 – PHYSICS

NGT 51230 RICE UNIVERSITY **8905**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 – 09/15/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: A J MEADE, JR
Tech. Officer: JSC/SGOLDSTEIN
CASE Category: 46 – MECHANICAL ENGR

NGT 51376 RICE UNIVERSITY **8906**
GRADUATE STUDIES RESEARCHERS PROGRAM
 06/26/1995 – 07/14/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: D HEYMANN
Tech. Officer: HQ/D HOLLAND
CASE Category: 32 – GEOLOGICAL SCIENCE

NGT 51382 RICE UNIVERSITY **8907**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/05/1995 – 09/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: P H REITT
Tech. Officer: HQ/D HOLLAND
CASE Category: 13 – PHYSICS

NGT 70353 RICE UNIVERSITY **8908**
GRADUATE STUDENT RESEARCHERS PROGRAM
 09/02/1993 – 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: A MEADE
Tech. Officer: HQ/D K RUSSELL
CASE Category: 46 – MECHANICAL ENGR

NGT 5 34 RICE UNIVERSITY **8909**
THE SOLAR WIND INTERACTION WITH THE MARTIAN ATMOSPHERE
 07/24/1996 – 08/31/1999 FY98: \$44,000 Total: \$66,000
Prin. Invest.: P A CLOUTIER
Tech. Officer: GSFC/G A SOFFEN, GSFC/M ACUNA
CASE Category: 11 – ASTRONOMY

NGT 5 50057 RICE UNIVERSITY **8910**
THE COMPOSITION AND GEOLOGIC SETTING OF LUNAR FAR
 07/28/1997 – 07/14/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D LEEMAN
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 50119 RICE UNIVERSITY **8911**
DATA ANALYSIS IN SUPPORT OF GLOBAL GEOSPACE SCIENCE
 09/06/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: P H REIFF
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90021 RICE UNIVERSITY **8912**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 01/27/1997 - 08/14/1997 FY98: \$0 Total: \$12,000
Prin. Invest.: R STABELL
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 8 52814 RICE UNIVERSITY **8913**
GRAD STUDENT RESEARCHERS PROGRAM
 07/25/1996 - 06/30/1999 FY98: \$20,167 Total: \$64,167
Prin. Invest.: A W CRIPER
Tech. Officer: MSFC/G FISHMAN
CASE Category: 13 - PHYSICS

NGT 8 52834 RICE UNIVERSITY **8914**
GRADUATE STUDENT RESEARCHERS PROGRAM FOR DONNA DEMPSEY
 09/26/1996 - 06/30/1999 FY98: \$20,167 Total: \$64,167
Prin. Invest.: T W HILL
Tech. Officer: MSFC/T MOORE
CASE Category: 13 - PHYSICS

NGT 9 9 RICE UNIVERSITY **8915**
ANALYSIS OF MECHANICAL LOADING EFFECTS
 07/03/1996 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: A G MIKOS
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 56 - MEDICAL

NGT 9 23 RICE UNIVERSITY **8916**
UNDERSTANDING PROPERTIES OF NANOTUBE REINFORCED ..
 05/30/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: E V BARRERA
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 975 SAN ANTONIO COLLEGE **8917**
SPACE AND GEOSCIENCE PROJECT
 09/25/1997 - 07/31/1999 FY98: \$32,720 Total: \$226,517
Prin. Invest.: C GONZALES
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 4562 SOUTHERN METHODIST UNIVERSITY **8918**
CORONAE AND CHASMATA:IMPLICATIONS FOR TERRRESTRIAL
 05/29/1997 - 05/14/2001 FY98: \$29,792 Total: \$87,908
Prin. Invest.: D L HANSEN
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 4609 SOUTHERN METHODIST UNIVERSITY **8919**
TETON C EVOLUTION OF PLANET SURFACES
 05/19/1997 - 05/14/2000 FY98: \$21,809 Total: \$42,435
Prin. Invest.: D L HANSEN
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 2915 SOUTHERN METHODIST UNIVERSITY **8920**
STRUCTURAL, KINEMATIC, AND STRAIN HISTORY ANALYSIS
 02/27/1992 - 08/31/1997 FY98: -\$4 Total: \$239,870
Prin. Invest.: V L HANSEN
Tech. Officer: HQ/J M BOYCE
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 9 0019 SOUTHWEST TEXAS JUNIOR COLLEGE **8921**
PRECOLLEGE AWARD FOR EXCELLENCE PACE/MSET
 05/28/1998 - 08/31/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: A HERNANDEZ, JR.
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 031 SOUTHWEST TEXAS STATE UNIVERSITY **8922**
TRIFLUOROMETHYL - SUBSTITUTED POLYIMIDINES
 01/14/1996 - 01/14/1998 FY98: \$0 Total: \$551,412
Prin. Invest.: P E CASSIDY
Tech. Officer: LARC/A K ST CLAIR, LARC/D M STOAKLEY
CASE Category: 12 - CHEMISTRY

NAG 8 1367 SOUTHWEST TEXAS STATE UNIVERSITY **8923**
A NASA UNIVERSITY JOINT VENTURE IN SPACE SCIENCE (JOVE). PROVIDES 1ST YEAR FUNDING
 05/28/1997 - 08/31/1998 FY98: \$0 Total: \$23,557
Prin. Invest.: S F TARSITANO
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NCC 1 169 SOUTHWEST TEXAS STATE UNIVERSITY **8924**
LOW DIELECTRIC POLYMER
 12/08/1997 - 12/07/1998 FY98: \$84,672 Total: \$84,672
Prin. Invest.: P E CASSIDY, J W FITCH
Tech. Officer: LARC/A K ST. CLAIR, LARC/D M STOAKLEY
CASE Category: 12 - CHEMISTRY

NAG 1 1018 TEXAS A&M UNIVERSITY **8925**
WAVELET GALERKIN METHODS AND MULTIREOLUTION ANALYSIS IN COMPUTATION MECHANICS
 04/21/1994 - 05/31/1997 FY98: \$1 Total: \$85,807
Prin. Invest.: A KURDILA, T STRGANAC, R LAZAROV
Tech. Officer: LARC/J M HOUSNER
CASE Category: 46 - MECHANICAL ENGR

NAG 1 1053 TEXAS A&M UNIVERSITY **8926**
APPLICATION OF ARTIFICIAL NEURAL NETWORKS FOR THE CALIBRATION OF 5-HOLE PROBE
 09/18/1997 - 11/17/1998 FY98: \$35,000 Total: \$94,916
Prin. Invest.: D K REDINIOTIS
Tech. Officer: LARC/W L SELLERS, III
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1784 TEXAS A&M UNIVERSITY **8927**
A PROGRESSIVE DAMAGE MODEL FOR LAMINATED COMPOSITE SUB-
JECTED TO FATIGUE LOADING
 12/18/1995 - 05/17/1998 FY98: \$11,231 Total: \$109,615
Prin. Invest.: D H ALLEN
Tech. Officer: LARC/I S RAJU, LARC/C C POE, JR.
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 1896 TEXAS A&M UNIVERSITY **8928**
OBSERVATIONAL AND MODELING STUDIES OF TRANSPORT AND MIXING
IN THE STRATOSPHERE AND TROPOSPHERE
 02/21/1997 - 01/31/1999 FY98: \$75,000 Total: \$148,929
Prin. Invest.: K P BOWMAN
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1950 TEXAS A&M UNIVERSITY **8929**
DIGSTAR: A LOW COST STAR TRACKER FOR MICRO- SPACECRAFT
 06/30/1997 - 12/15/1998 FY98: \$100,000 Total: \$150,000
Prin. Invest.: T C POLLOCK, J L JUNKIS
Tech. Officer: LARC/J JUANG, LARC/M R KOCK
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 3 1434 TEXAS A&M UNIVERSITY **8930**
THERMOHYDRODYNAMIC ANALYSIS OF CRYOGENIC LIQUID TURBULENT
FLOW FLUID FILM BEARINGS
 01/11/1993 - 12/31/1996 FY98: -\$73 Total: \$292,540
Prin. Invest.: L SAN ANDRES
Tech. Officer: LERC/J F WALKER
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1542 TEXAS A&M UNIVERSITY **8931**
ACTIVE CONTROL OF VIBRATION SUBTOPIC - HIGH TEMPERATURE MAG-
NETIC THRUST BEARING DEVELOPMENT
 09/29/1993 - 06/30/1997 FY98: -\$2 Total: \$152,488
Prin. Invest.: A B PALAZZOLO
Tech. Officer: LERC/A F KASCAK
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1556 TEXAS A&M UNIVERSITY **8932**
COMPUTATIONAL METHODS FOR ACTIVE CONTROL OF ROTOR VIBRA-
TION
 01/04/1994 - 04/03/1997 FY98: \$584 Total: \$120,000
Prin. Invest.: A B PALAZZOLO
Tech. Officer: LERC/C LAWRENCE
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 1656 TEXAS A&M UNIVERSITY **8933**
HIGH TURBULENCE EFFECTS ON TURBINE BLADE FILM COOLING HEAT
TRANSFER PERFORMANCE USING TRANSIENT LIQUID
 08/11/1994 - 08/31/1998 FY98: \$0 Total: \$249,296
Prin. Invest.: J C HAN
Tech. Officer: LERC/P E POINSATTE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1789 TEXAS A&M UNIVERSITY **8934**
FURTHER DEVELOPMENT OF GETRAN
 09/22/1995 - 02/10/1997 FY98: \$0 Total: \$35,000
Prin. Invest.: M T SCHOBELI
Tech. Officer: LERC/D E PAXSON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1821 TEXAS A&M UNIVERSITY **8935**
COMPUTATIONAL METHODS FOR ACTIVE CONTROL OF ROTOR VIBRA-
TION
 05/20/1996 - 02/19/1998 FY98: \$0 Total: \$59,954
Prin. Invest.: A B PALAZZOLO
Tech. Officer: LERC/A F KASCAK
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1980 TEXAS A&M UNIVERSITY **8936**
LOCAL HEAT TRANSFER DISTRIBUTIONS ROTATING MULTIPASS PAS-
SAGES IN TURBINE AIRFOILS W/O FILM EJECTION
 11/01/1996 - 10/31/1998 FY98: \$59,940 Total: \$149,101
Prin. Invest.: S C LAU
Tech. Officer: LERC/S A HIPPENSTEELE
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1989 TEXAS A&M UNIVERSITY **8937**
FAIL SAFE MAGNETIC BEARING DEVELOPMENT
 11/15/1996 - 10/31/1999 FY98: \$50,400 Total: \$120,059
Prin. Invest.: A B PALAZZOLO
Tech. Officer: LERC/G T MONTAGUE
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1990 TEXAS A&M UNIVERSITY **8938**
COMPUTATIONAL SOFTWARE FOR MAGNETIC BEARING SYSTEM
DEVELOPMENT
 11/15/1996 - 10/31/1999 FY98: \$36,000 Total: \$83,202
Prin. Invest.: A B PALAZZOLO
Tech. Officer: LERC/G T MONTAGUE
CASE Category: 46 - MECHANICAL ENGR

NAG 3 2002 TEXAS A&M UNIVERSITY **8939**
TURBINE BLADE TIP HEAT TRANSFER & FILM COOLING STUDY USING A
TRANSIENT LIQUID CRYSTAL IMAGE METHOD
 01/21/1997 - 12/30/1999 FY98: \$56,068 Total: \$131,755
Prin. Invest.: J C HAN, S V EKKAD
Tech. Officer: LERC/R J BOYLE
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2015 TEXAS A&M UNIVERSITY **8940**
INTEGRATION OF NASA WAVE ROTOR COMPONENT INTO FET RAN
 04/02/1997 - 02/20/1998 FY98: \$7,009 Total: \$34,009
Prin. Invest.: M T SCHOBELI
Tech. Officer: LERC/D E PAXSON
CASE Category: 41 - AERONAUTICAL ENGR

NAG 4 106 TEXAS A&M UNIVERSITY **8941**
R&D OF AN INTEGRATED CIRCUIT IMPLEMENTATION OF SIGNAL CON-
DITIONING A/C FOR SIMULTANEOUS MEASURE.
 03/15/1996 - 06/01/1999 FY98: \$14,006 Total: \$94,340
Prin. Invest.: S EMBABI
Tech. Officer: DFRC/A PARKER, JR.
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 673 TEXAS A&M UNIVERSITY **8942**
INVESTIGATION OF BALLOON MATERIAL PROPERTIES EXPOSED TO THE
LOW EARTH ORBIT ENVIRONMENT
 10/19/1990 - 03/31/1998 FY98: \$0 Total: \$259,556
Prin. Invest.: T W STRGANAC
Tech. Officer: GSFC/I S SMITH, GSFC/H C NEEDLEMAN
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 1423 TEXAS A&M UNIVERSITY **8943**
PARTICIPATION IN TRMM-1 AIRCRAFT EXPERIMENT
 08/02/1990 - 05/14/1997 FY98: \$0 Total: \$307,410
Prin. Invest.: T T WILHEIT
Tech. Officer: GSFC/J R WANG, GSFC/J C SHIUE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1568 TEXAS A&M UNIVERSITY **8944**
RADIOMETER TEAM LEADER
 05/31/1991 - 07/31/1997 FY98: \$0 Total: \$550,361
Prin. Invest.: T T WILHEIT
Tech. Officer: GSFC/J WEINMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1569 TEXAS A&M UNIVERSITY **8945**
VALIDATION AND TRANSFERABILITY OF TROPICAL RAIN ESTIMATION METHODS
 05/13/1991 - 09/30/1997 FY98: \$0 Total: \$1,478,427
Prin. Invest.: E ZIPSER
Tech. Officer: GSFC/O THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1590 TEXAS A&M UNIVERSITY **8946**
STATISTICAL STUDIES FOR THE TROPICAL RAINFALL MEASURING MISSION
 06/24/1991 - 08/31/1997 FY98: \$0 Total: \$516,723
Prin. Invest.: G R NORTH
Tech. Officer: GSFC/T BELL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3753 TEXAS A&M UNIVERSITY **8947**
"THE REMOTE SENSING OF MINERAL AEROSOLS AND THEIR PHYTOPLANKTON PRODUCTIVITY USING SEAWIFS"
 11/18/1996 - 08/31/1997 FY98: \$0 Total: \$45,575
Prin. Invest.: N W TINDALE
Tech. Officer: GSFC/N MAYNARD
CASE Category: 33 - OCEANOGRAPHY

NAG 5 3754 TEXAS A&M UNIVERSITY **8948**
SKELETAL MUSCLE ARTERIOLAR ADAPTATIONS TO STIMULAT
 11/22/1996 - 11/14/1999 FY98: \$102,471 Total: \$223,669
Prin. Invest.: M D DELP
Tech. Officer: GSFC/M A SHEPANAK
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3966 TEXAS A&M UNIVERSITY **8949**
CHARACTERIZATION OF THE SPATIAL-TEMPORAL VARIABILITY BY REMOTE SENSING
 03/03/1997 - 09/30/1998 FY98: \$0 Total: \$95,000
Prin. Invest.: J B VALDES
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4746 TEXAS A&M UNIVERSITY **8950**
MICROWAVE RADIOMETER AND MULTI-INSTRUMENT ALGORITHM
 06/26/1997 - 06/30/1999 FY98: \$118,000 Total: \$226,000
Prin. Invest.: T T WILHEIT
Tech. Officer: GSFC/O A THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1753 TEXAS A&M UNIVERSITY **8951**
STATISTICAL SAMPLING AND ESTIMATION PROBLEMS USING
 06/27/1997 - 06/30/1999 FY98: \$137,545 Total: \$207,545
Prin. Invest.: G R NORTH
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1776 TEXAS A&M UNIVERSITY **8952**
VALIDATION AND ESTIMATES OF TROPICAL RAIN AND DIAB
 06/27/1997 - 06/30/1999 FY98: \$250,000 Total: \$390,000
Prin. Invest.: M I BIGGERSTAFF
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1796 TEXAS A&M UNIVERSITY **8953**
VALIDATION AND TRANSFERABILITY OF TROPICAL RAIN
 08/22/1997 - 09/30/1999 FY98: \$346,307 Total: \$496,307
Prin. Invest.: E ZIPSER
Tech. Officer: GSFC/O THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6444 TEXAS A&M UNIVERSITY **8954**
ON THE SPACE-TIME ORGANIZATION OF SOIL MOISTURE FIELDS: DYNAMICS & INTERACTION WITH THE ATMOSP
 10/31/1997 - 08/31/1999 FY98: \$76,782 Total: \$76,782
Prin. Invest.: I RODRIGUEZ
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6446 TEXAS A&M UNIVERSITY **8955**
WORLD OCEAN CIRCULATION EXPERIMENT: SUPPORT FOR THE U.S. WOCE OFFICE
 11/25/1997 - 12/31/1998 FY98: \$125,000 Total: \$125,000
Prin. Invest.: W D NOWLIN
Tech. Officer: GSFC/J CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 1481 TEXAS A&M UNIVERSITY **8956**
A DISTRIBUTED ENVIRONMENTAL DATA SERVER
 11/18/1997 - 09/30/1999 FY98: \$270,691 Total: \$270,691
Prin. Invest.: D P BOWMAN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 1566 TEXAS A&M UNIVERSITY **8957**
MUTUAL INTERACTION OF SOIL MOISTURE AND CLIMATE DYNAMICS
 11/04/1997 - 08/31/1998 FY98: \$36,000 Total: \$36,000
Prin. Invest.: I RODRIGUEZ
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 1588 TEXAS A&M UNIVERSITY **8958**
DETERMINATION OF OCEAN COLOR PROVINCES IN THE NORTH ATLANTIC
 10/31/1997 - 10/31/1998 FY98: \$21,376 Total: \$21,376
Prin. Invest.: N TINDALE
Tech. Officer: GSFC/J YODER
CASE Category: 33 - OCEANOGRAPHY

NAG 5 6643 TEXAS A&M UNIVERSITY **8959**
GRAPHICS AND COMPUTING EQUIPMENT TO INCREASE THE REMOTE
SENSING GIS AND SPATIAL DATA INTEGRATION
 11/25/1997 - 10/31/1998 FY98: \$120,600 Total: \$120,600
Prin. Invest.: R C MAGGIO
Tech. Officer: GSFC/M Y WEI
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 807 TEXAS A&M UNIVERSITY **8967**
COMBINING THE PHOTOGRAPHY/LANDSCAPE ECOLOGY TO PRODUCE A
PREDICTIVE MODEL
 08/02/1995 - 08/31/1999 FY98: \$0 Total: \$64,314
Prin. Invest.: J GIARDINO
Tech. Officer: JSC/K LULLA
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 299 TEXAS A&M UNIVERSITY **8960**
MODELING AND DIAGNOSING TROPICAL MOISTURE VARIATION
 10/21/1993 - 07/20/1997 FY98: \$0 Total: \$208,980
Prin. Invest.: J P MC GUIRK
Tech. Officer: MSFC/J W KAUFMAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 821 TEXAS A&M UNIVERSITY **8968**
NONINVASIVE NEAR INFRARED SENSOR FOR CONTINUAL CEL L GLU-
COSE MEASUREMENT
 08/11/1995 - 09/17/1998 FY98: \$87,000 Total: \$368,250
Prin. Invest.: G COTE
Tech. Officer: JSC/N PELLIS
 CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1100 TEXAS A&M UNIVERSITY **8961**
JOVE
 10/18/1994 - 07/31/1997 FY98: \$0 Total: \$61,000
Prin. Invest.: H G BLOUNT II
Tech. Officer: MSFC/F SIX
 CASE Category: 11 - ASTRONOMY

NAG 9 882 TEXAS A&M UNIVERSITY **8969**
PERFORMANCE ENHANCEMENTS OF HEAT TRANSFER DEVICES
 08/02/1996 - 08/01/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: J S YAGOOBI
Tech. Officer: JSC/K HURLBERT
 CASE Category: 45 - ELECTRICAL ENGR

NAG 8 1200 TEXAS A&M UNIVERSITY **8962**
GLOBAL DISTRIBUTION OF TROPICAL RAINFALL
 09/20/1995 - 09/30/1996 FY98: -\$2 Total: \$74,998
Prin. Invest.: E J ZIPSER, J P MCGUIRK
Tech. Officer: MSFC/S J GOODMAN, MSFC/H M GOODMAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 886 TEXAS A&M UNIVERSITY **8970**
SINGLE HIGH LINEAR TRANSFER PARTICLES TO STUDY BIOLOGICAL
EFFECTS OF RADIATION IN SPACE
 07/12/1996 - 06/30/1998 FY98: \$0 Total: \$63,000
Prin. Invest.: D BRABY
Tech. Officer: JSC/T YANG
 CASE Category: 56 - MEDICL

NAG 8 1343 TEXAS A&M UNIVERSITY **8963**
FOR RESEARCH "ACTIVE VIBRATION CONTROL SYSTEM DEVELOPMENT
FOR MICROGRAVITY ISOLATION"
 04/14/1997 - 02/14/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: A B PALAZZOLO
Tech. Officer: MSFC/M S WHORTON, MSFC/D C ALHORN
 CASE Category: 46 - MECHANICAL ENGR

NAG 9 889 TEXAS A&M UNIVERSITY **8971**
HAND FORCE EXERTION CAPABILITY MODELING FOR EXTRAVEHICULAR
ACTIVITIES
 07/12/1996 - 02/02/1999 FY98: \$0 Total: \$59,500
Prin. Invest.: D KERK
Tech. Officer: JSC/J MAIDA
 CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 8 1395 TEXAS A&M UNIVERSITY **8964**
R/S "BULK FLOW ANALYSIS OF HYBRID THRUST BEARINGS FOR
ADVANCED CRYOGENIC TURBOPUMPS"
 07/21/1997 - 06/30/1998 FY98: \$0 Total: \$36,000
Prin. Invest.: L SAN ANDREAS
Tech. Officer: MSFC/R THOM
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 893 TEXAS A&M UNIVERSITY **8972**
AERCAM ENHANCEMENTS (EVA ROBOT CAMERA CONTROL)
 07/19/1996 - 06/30/1998 FY98: \$0 Total: \$68,000
Prin. Invest.: D A VOLZ, D C TINKLE
Tech. Officer: JSC/T PENDLETON
 CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 8 1491 TEXAS A&M UNIVERSITY **8965**
INTENSITY AND ORGANIZATION OF CONVECTION IN HURRICANES AND
TROPICAL CYCLONES BEFORE AND AFTER
 01/30/1998 - 02/01/2001 FY98: \$49,396 Total: \$49,396
Prin. Invest.: E J ZIPSER
Tech. Officer: MSFC/J ARNOLD, MSFC/R K KAKAR
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 894 TEXAS A&M UNIVERSITY **8973**
STABILITY OF 2-PHASE FLOW MANIFOLDED SYSTEMS UNDER IG AND OG
CONDITIONS
 07/19/1996 - 02/01/1999 FY98: \$79,982 Total: \$154,982
Prin. Invest.: D LANGHANS
Tech. Officer: JSC/K HENDERSON
 CASE Category: 55 - AGRICULTURE

NAG 9 331 TEXAS A&M UNIVERSITY **8966**
SPACE RADIATION/MATERIALS/DEVICES
 01/15/1989 - 03/01/1999 FY98: \$0 Total: \$484,412
Prin. Invest.: J S LINDER
Tech. Officer: JSC/CHERMAN
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 917 TEXAS A&M UNIVERSITY **8974**
X-35 DROP MODEL SIMULATION
 11/05/1996 - 05/20/1997 FY98: -\$778 Total: \$5,155
Prin. Invest.: D T WARD
Tech. Officer: JSC/J MUCATORE
 CASE Category: 49 - ENGINEERING, OTHER

NAG 9 931 TEXAS A&M UNIVERSITY **8975**
NASA ASEE SUMMER FALCULTY FELLOWSHIP PROGRAM
 03/17/1997 - 09/30/1999 FY98: \$750 Total: \$489,049
Prin. Invest.: W A HYMAN, J PRITCHARD
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 49 - ENGINEERING, OTHER

NAGW 1194 TEXAS A&M UNIVERSITY **8976**
CENTER FOR THE COMMERCIAL DEVE. OF SPACE POWER
 09/30/1987 - 10/31/1998 FY98: \$0 Total: \$10,643,300
Prin. Invest.: F R BEST, D R BOYLE
Tech. Officer: HQ/C LIVINGSTON, HQ/V CEVENINI
CASE Category: 45 - ELECTRICAL ENGR

NAGW 1979 TEXAS A&M UNIVERSITY **8977**
STUDIES OF GEOSTROPHIC TURBULENCE USING GEOSAT DATA
 05/22/1990 - 12/30/1997 FY98: -\$393 Total: \$526,821
Prin. Invest.: R H STEWART
Tech. Officer: HQ/G S LAGERLOEF, HQ/W S WILSON
CASE Category: 33 - OCEANOGRAPHY

NAGW 3186 TEXAS A&M UNIVERSITY **8978**
CONSTRUCTING A RECORD OF TROPICAL DEFORESTATION USING LANDSAT, AVHRR,
 08/28/1992 - 01/31/1997 FY98: -\$4,660 Total: \$113,574
Prin. Invest.: J GIARDINO, F HOSKINS
Tech. Officer: HQ/M R HALFERT, HQ/D M BUTLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3442 TEXAS A&M UNIVERSITY **8979**
OBSERVATIONAL AND MODEL STUDIES OF LARGE SCALE MIXING PROCESSES IN THE STRATOSPHERE
 03/17/1993 - 02/28/1997 FY98: -\$87 Total: \$249,295
Prin. Invest.: K P BOWMAN
Tech. Officer: HQ/J A KAYE, HQ/R E MURPHY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 3652 TEXAS A&M UNIVERSITY **8980**
THE REMOTE SENSING OF MINERAL AEROSOLS AND THEIR IMPACT ON PHYTOPLANKTON PRODUCTIVITY USING SEAWIFS
 06/15/1993 - 08/31/1997 FY98: \$0 Total: \$103,954
Prin. Invest.: N W TINDALE
Tech. Officer: HQ/J A KAYE, HQ/R E MURPHY
CASE Category: 33 - OCEANOGRAPHY

NAGW 3963 TEXAS A&M UNIVERSITY **8981**
"MARS GEOLOGIC MAPPING: DAO AND NIGER VALLES"
 04/22/1994 - 09/01/1997 FY98: \$0 Total: \$45,640
Prin. Invest.: K H PRICE
Tech. Officer: HQ/R WILLIAMS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 4189 TEXAS A&M UNIVERSITY **8982**
CHARACTERIZATION OF THE SPATIAL-TEMPORAL VARIABILITY OF SOIL MOISTURE BY REMOTE SENSING
 11/04/1994 - 12/31/1997 FY98: \$0 Total: \$186,975
Prin. Invest.: J B VALDES
Tech. Officer: HQ/M Y WEI, HQ/J S THEON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4766 TEXAS A&M UNIVERSITY **8983**
SPACE TIME ORGANIZATION
 09/25/1995 - 08/30/1998 FY98: \$0 Total: \$135,972
Prin. Invest.: I RODRIGUEZ-ITURBE, D ENTEKHABI
Tech. Officer: HQ/M Y WEI, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4842 TEXAS A&M UNIVERSITY **8984**
SKELETAL MUSCLE ARTERIOLAR ADAPTIONS TO STIMULATED MICROGRAVITY
 11/02/1995 - 09/30/1997 FY98: -\$2 Total: \$105,422
Prin. Invest.: M D DELP, PH.D
Tech. Officer: HQ/M SHEPANEK
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 5032 TEXAS A&M UNIVERSITY **8985**
WORLD OCEAN CIRCULATION EXPERIMENT: SUPPORT FOR THE U.S. WOCE OFFICE
 04/09/1996 - 06/30/1998 FY98: \$0 Total: \$150,000
Prin. Invest.: W D NOWLIN
Tech. Officer: HQ/B C DOUGLAS, HQ/N MAYNARD
CASE Category: 33 - OCEANOGRAPHY

NAS 532593 TEXAS A&M UNIVERSITY **8986**
STUDY ENTITLED MIMR SCIENCE TEAM MEMBERSHIP
 12/15/1993 - 12/31/2000 FY98: \$141,000 Total: \$671,013
Prin. Invest.: T T WILHEIT
Tech. Officer: GSFC/P HWONG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 997002 TEXAS A&M UNIVERSITY **8987**
TEXAS A & M LOW-SPEED WIND TUNNEL (LSWT) TESTING
 04/02/1997 - 04/02/2000 FY98: \$46,757 Total: \$109,257
Prin. Invest.: J L MARTINEZ
Tech. Officer: JSC/S G LABBE, JSC/C J CERIMELE
CASE Category: 41 - AERONAUTICAL ENGR

NCC 3 116 TEXAS A&M UNIVERSITY **8988**
THE CENTER FOR SPACE POWER
 11/26/1996 - 11/03/2001 FY98: \$650,001 Total: \$1,700,001
Prin. Invest.: F R BEST
Tech. Officer: LERC/JE CALOGERAS, LERC/R L SOVIE
CASE Category: 99 - MULTIDISCIPL, OTHER

NCC 3 632 TEXAS A&M UNIVERSITY **8989**
THERMAL CONTROL AND ENHANCEMENT OF HEAT TRANSPORT CAPABILITY OF CRYOGENIC CAPILLARY PUMPED LOOPS AND
 03/20/1993 - 01/28/2002 FY98: \$64,369 Total: \$64,369
Prin. Invest.: J SEYED-YAGOUBI, J M OCHTERBECK, J B BYRAN
Tech. Officer: LERC/F P CHIARAMONTE
CASE Category: 46 - MECHANICAL ENGR

NCC 4 111 TEXAS A&M UNIVERSITY **8990**
MULTIREOLUTION & TIME-FREQUENCY CHARACTERIZATIONS OF NON-LINEAR DYNAMICS IN AEROELASTIC & AERO SYS
 04/09/1997 - 11/30/1998 FY98: \$10,000 Total: \$50,000
Prin. Invest.: T W STRGANAC, A KURDILA
Tech. Officer: DFRC/M BRENNER
CASE Category: 41 - AERONAUTICAL ENGR

NASA'S UNIVERSITY PROGRAM

TEXAS

NCC 5 359 TEXAS A&M UNIVERSITY **8991**
MISSION GEOGRAPHY
 08/24/1998 – 07/31/2001 FY98: \$250,800 Total: \$250,800
Prin. Invest.: S BEDNARZ
Tech. Officer: HQ/P MOUNTJOY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 9 69 TEXAS A&M UNIVERSITY **8992**
NASA COMMERCIAL SPACE TO ADOCBATE & SUPPORT COMMERCIAL ENGINEERING ON ISS
 05/07/1998 – 05/08/1999 FY98: \$440,789 Total: \$440,789
Prin. Invest.: D R BOYLE, M SCHULLER, FR BEST
Tech. Officer: JSC/C G PARRA, JSC/R C HAHN
CASE Category: 49 – ENGINEERING, OTHER

NGT 51229 TEXAS A&M UNIVERSITY **8993**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 – 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: L R HOSSNER
Tech. Officer: JSC/S GOLDSTEIN
CASE Category: 55 – AGRICULTURE

NGT 51232 TEXAS A&M UNIVERSITY **8994**
GRADUATE STUDENT RESEARCHERS PROGRAM
 09/08/1994 – 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J S YAGOOBI
Tech. Officer: JSC/S GOLDSTEIN
CASE Category: 46 – MECHANICAL ENGR

NGT 51244 TEXAS A&M UNIVERSITY **8995**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/29/1994 – 08/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: M J ANDREWS
Tech. Officer: LERC/F MONTEGANI
CASE Category: 46 – MECHANICAL ENGR

NGT 51337 TEXAS A&M UNIVERSITY **8996**
GRADUATE STUDENT RESEARCHER PROGRAM
 08/22/1994 – 06/30/1997 FY98: -\$3,894 Total: \$62,106
Prin. Invest.: M B HALL
Tech. Officer: ARC/M MOORE
CASE Category: 12 – CHEMISTRY

NGT 70387 TEXAS A&M UNIVERSITY **8997**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 08/26/1994 – 06/30/1997 FY98: \$0 Total: \$64,400
Prin. Invest.: M DREW
Tech. Officer: HQ/D RUSSELL
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 2 52213 TEXAS A&M UNIVERSITY **8998**
A VISUAL OPTIMIZATION ENVIRONMENT FOR AIRCRAFT CONCEPTUAL DESIGN
 07/18/1996 – 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: D L DARMOFAL
Tech. Officer: ARC/H MIURA, ARC/T L GALLOWAY
CASE Category: 41 – AERONAUTICAL ENGR

NGT 2 52226 TEXAS A&M UNIVERSITY **8999**
IMPROVING MULTIGRID PERFORMANCE FOR NAVIER-STOKES CALCULATIONS
 08/05/1997 – 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: D L DARMOFAL
Tech. Officer: ARC/T H PULLIAM
CASE Category: 41 – AERONAUTICAL ENGR

NGT 3 52321 TEXAS A&M UNIVERSITY **9000**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/06/1996 – 08/31/1997 FY98: -\$4 Total: \$4,996
Prin. Invest.: J A CATON
Tech. Officer: LERC/D MONTEGANI
CASE Category: 46 – MECHANICAL ENGR

NGT 5 30033 TEXAS A&M UNIVERSITY **9001**
LIGHTNING AND ITS RELATIONSHIP TO 85 GHZ ICE SCATT IN THE GLOBAL TROPICS
 10/17/1996 – 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: E ZIPSER
Tech. Officer: GSFC/G ASRAR
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 5 70002 TEXAS A&M UNIVERSITY **9002**
GRADUATE STUDENT RESEARCH PROGRAM – STUDENT: ROBER
 08/26/1997 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: M C DREW
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 90005 TEXAS A&M UNIVERSITY **9003**
UNDERGRADUATE STUDENT RESEARCHERS PROGRAM (USAR)
 12/30/1996 – 08/14/1998 FY98: \$28,000 Total: \$76,000
Prin. Invest.: W TURNER
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 8 52815 TEXAS A&M UNIVERSITY **9004**
GRAD STUDENT RESEARCHERS PROGRAM
 07/25/1996 – 06/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: J J MOORE
Tech. Officer: MSFC/P VALLELY
CASE Category: 46 – MECHANICAL ENGR

NGT 9 30 TEXAS A&M UNIVERSITY **9005**
MRI SKELETAL MEASURING
 09/24/1997 – 06/30/1999 FY98: \$0 Total: \$22,000
Prin. Invest.: W HYMAN, L LAWRENCE
Tech. Officer: JSC/D SICKOREZ
CASE Category: 56 – MEDICL

NGT 9 34 TEXAS A&M UNIVERSITY **9006**
TRAINING GRANT
 06/04/1998 – 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R W WEAVER
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 55 – AGRICULTURE

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| NGT44 1800 TEXAS A&M UNIVERSITY 9007 NASA ASEE SUMMER FACULTY FELLOWSHIP PROGRAM 01/01/1980 – 09/30/1997 FY98: \$0 Total: \$3,051,372 <i>Prin. Invest.:</i> W A HYMAN <i>Tech. Officer:</i> HQ/A S MCGEE, HQ/E T SCHWARTZ CASE Category: 49 – ENGINEERING, OTHER | NAG 9 712 TEXAS SOUTHERN UNIVERSITY 9015 PHYROSAXINS IN PLANT DISEASE DEVELOPMENT IN HYDRO PHONICS 09/22/1993 – 10/01/1997 FY98: \$0 Total: \$501,650 <i>Prin. Invest.:</i> O A JEJELOWO <i>Tech. Officer:</i> JSC/D BARTA CASE Category: 55 – AGRICULTURE |
| NAG 5 4699 TEXAS A&M UNIVERSITY SYSTEM 9008 GLOBAL DISTRIBUTION OF LIGHTNING FROM THE DTD AND DISTRIBUTION OF MCSS FROM THE SSM/I 06/06/1997 – 05/31/1999 FY98: \$85,691 Total: \$168,804 <i>Prin. Invest.:</i> E ZIPSER <i>Tech. Officer:</i> GSFC/J C DODGE CASE Category: 31 – ATMOSPHERIC SCIENCE | NAG 9 755 TEXAS SOUTHERN UNIVERSITY 9016 SELECTED COMPLEX IONS & LIGANDS/SIMULATED RIGOLITH & HYDRO-PONIC SYSTEMS 09/19/1994 – 06/14/1997 FY98: \$0 Total: \$250,000 <i>Prin. Invest.:</i> R F WILSON, NONE <i>Tech. Officer:</i> JSC/D HENNINGER CASE Category: 54 – ENVIRONMENTAL BIOLOGY |
| NAG 5 7159 TEXAS A&M UNIVERSITY-KINGSVILLE 9009 SIMULATION SUPPORT FOR THE DEVELOPMENT OF GLAST 03/16/1998 – 08/31/1999 FY98: \$36,900 Total: \$36,900 <i>Prin. Invest.:</i> D SUSON <i>Tech. Officer:</i> GSFC/D THOMPSON CASE Category: 13 – PHYSICS | NAG 9 714 TEXAS SOUTHERN UNIVERSITY 9017 THE LAW OF PROPERTY IN SPACE 03/17/1993 – 08/31/1997 FY98: -\$3,992 Total: \$146,008 <i>Prin. Invest.:</i> O KING <i>Tech. Officer:</i> JSC/M DIGOU CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NAG 8 1297 TEXAS A&M UNIVERSITY-KINGSVILLE 9010 PRESENTING THE SHUTTLE MAIN ENGINE 05/16/1996 – 05/31/1998 FY98: \$0 Total: \$57,902 <i>Prin. Invest.:</i> B SCHREVR <i>Tech. Officer:</i> MSFC/C NOLA CASE Category: 29 – MATH/COMPUTER SCI, OTHER | NAG 9 711 TEXAS SOUTHERN UNIVERSITY 9018 HIGH ENERGY CELLS AND BATTERIES 04/17/1993 – 05/30/1998 FY98: \$0 Total: \$600,002 <i>Prin. Invest.:</i> A R CHOWDHURY, M C GOURDINE <i>Tech. Officer:</i> JSC/B J BRAGG CASE Category: 45 – ELECTRICAL ENGR |
| NAG 9 682 TEXAS A&M UNIVERSITY-KINGSVILLE 9011 MINORITY EDUCATION PROGRAM K-12 OUTREACH EFFORTS 04/02/1993 – 08/19/1998 FY98: \$0 Total: \$392,899 <i>Prin. Invest.:</i> J L KIMBALL <i>Tech. Officer:</i> JSC/L M ARMENDARIZ CASE Category: 79 – SOCIAL SCIENCE, OTHER | NAG 9 862 TEXAS SOUTHERN UNIVERSITY 9019 MICROGRAVITY & SICKLE CELL ANEMIA 02/29/1996 – 08/28/1998 FY98: \$0 Total: \$350,000 <i>Prin. Invest.:</i> D FADULA <i>Tech. Officer:</i> JSC/J D ATKINSON CASE Category: 56 – MEDICAL |
| NAG 5 7040 TEXAS CHRISTIAN UNIVERSITY 9012 CRITICAL TESTS OF STELLAR EVOLUTION (LTSA) 03/02/1998 – 02/28/1999 FY98: \$8,000 Total: \$8,000 <i>Prin. Invest.:</i> P MARCUM <i>Tech. Officer:</i> GSFC/D K WEST CASE Category: 11 – ASTRONOMY | NAG 9 863 TEXAS SOUTHERN UNIVERSITY 9020 FEASIBILITY STUDY FOR ENVIRONMENTAL SCIENCE INST 05/07/1996 – 05/31/1997 FY98: \$0 Total: \$75,000 <i>Prin. Invest.:</i> O H CRINER <i>Tech. Officer:</i> JSC/K KRISHEN CASE Category: 22 – COMPUTER SCIENCE |
| NAG 8 1356 TEXAS CHRISTIAN UNIVERSITY 9013 EXPERIMENTAL ASSESSMENT OF MULTICOMPONENT EFFECTS IN DIFFUSION-DOMINATED TRANSPORT PROTEIN CRYSTAL 05/23/1997 – 11/30/1998 FY98: \$72,000 Total: \$114,000 <i>Prin. Invest.:</i> J G ALBRIGHT <i>Tech. Officer:</i> MSFC/C L TALLEY, MSFC/D A NOEVER CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR) | NAG 9 871 TEXAS SOUTHERN UNIVERSITY 9021 SOLAR PHOTOVOLTAIC REFRIGERATION EXPERIMENTATION 07/03/1996 – 11/30/1997 FY98: \$0 Total: \$25,000 <i>Prin. Invest.:</i> J HILL <i>Tech. Officer:</i> JSC/M K EWERT CASE Category: 49 – ENGINEERING, OTHER |
| NAG 5 7209 TEXAS SOUTHERN UNIVERSITY 9014 CENTER OF EXCELLENCE IN APPLICATIONS OF REMOTE SENSING TO REGIONAL AND GLOBAL INTEGRATED ENVIRONMENT 04/17/1998 – 04/14/1999 FY98: \$80,000 Total: \$80,000 <i>Prin. Invest.:</i> J JONES <i>Tech. Officer:</i> GSFC/M Y WEI CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NAG 9 871 TEXAS SOUTHERN UNIVERSITY 9022 ENHANCE CAPABILITY FOR ENVIRONMENTAL SENSING RESEARCH AT TSU 11/19/1996 – 12/31/1997 FY98: \$0 Total: \$150,000 <i>Prin. Invest.:</i> J JONES <i>Tech. Officer:</i> JSC/J D ATKINSON CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |

NAG 9 974 TEXAS SOUTHERN UNIVERSITY **9023**
SUPPORT NASA ENVIRONMENTAL INSTITUTE
 09/25/1997 - 09/30/1998 FY98: \$200,000 Total: \$350,000
Prin. Invest.: J JONES
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 988 TEXAS SOUTHERN UNIVERSITY **9024**
ANALYSIS OF SELECTED PLANT NUTRIENT SOLUTIONS
 03/19/1998 - 09/30/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: R F WILSON
Tech. Officer: JSC/D BARTA
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NCC 9 48 TEXAS SOUTHERN UNIVERSITY **9025**
SOLUBLE SILICON
 10/02/1996 - 08/31/1999 FY98: \$97,751 Total: \$147,751
Prin. Invest.: O A JEJELOWO
Tech. Officer: JSC/D BARTA
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 933 TEXAS SOUTHMOST COLLEGE **9026**
EDUCATION GRANT
 07/23/1997 - 08/31/1998 FY98: \$0 Total: \$135,102
Prin. Invest.: J V GARCIA
Tech. Officer: JSC/L M ARMENDARIZ
CASE Category: 21 - MATHEMATICS

NAG 9 965 TEXAS SOUTHMOST COLLEGE **9027**
K-12 SCIENCE OUTREACH
 09/18/1997 - 08/01/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: L V LOF
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 3060 TEXAS SOUTHMOST COLLEGE **9028**
SOUTH TEXAS SCIENCE OUTREACH PROGRAM
 05/04/1992 - 05/14/1997 FY98: \$0 Total: \$605,224
Prin. Invest.: L V LOF, P GOMEZ
Tech. Officer: JSC/L ARMENDARIZ, HQ/B L WHITE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 2 899 TEXAS TECH UNIVERSITY **9029**
**STUDENT SUPPORT FOR RESEARCH IN HIERARCHICAL CONTR OL & TRA-
 JECTORY PLANNING**
 01/01/1994 - 12/31/1997 FY98: -\$527 Total: \$139,471
Prin. Invest.: C F MARTIN
Tech. Officer: ARC/G MEYER
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 1077 TEXAS TECH UNIVERSITY **9030**
MULTIPLIED HOLOGRAPHIC DATA STORAGE IN BACTERIORH ODOPSIN
 08/19/1996 - 08/31/1998 FY98: \$90,280 Total: \$199,809
Prin. Invest.: D J MEHRL
Tech. Officer: ARC/C K GARY, ARC/M B REID
CASE Category: 22 - COMPUTER SCIENCE

NAG 3 1172 TEXAS TECH UNIVERSITY **9031**
ARCJET ELECTRODE DEGRADATION RESEARCH
 05/10/1990 - 12/14/1996 FY98: \$0 Total: \$973,080
Prin. Invest.: E A O'HAIR, M KRISTIANSEN, L L HATFIELD
Tech. Officer: LERC/F M CURRAN, LERC/T W HAAG
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 3 2005 TEXAS TECH UNIVERSITY **9032**
ARCJET ELECTRODE DEGRADATION RESEARCH
 01/24/1997 - 01/25/1999 FY98: \$364,551 Total: \$590,718
Prin. Invest.: E A O'HAIR, M KRISTIANSEN, J C DICKENS
Tech. Officer: LERC/L R PINERO
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 5156 TEXAS TECH UNIVERSITY **9033**
**OPTIMIZATION STUDIES FOR ACCESS CALORIMETRY INCREMENTAL
 FUNDING FOR FIRST YEAR OF GRANT**
 03/26/1998 - 12/31/1998 FY98: \$99,000 Total: \$99,000
Prin. Invest.: R WIGMANS
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 9 899 TEXAS TECH UNIVERSITY **9034**
PROGRESSIVE/FAST TRANSMISSION LARGE COLOR IMAGE
 09/12/1996 - 01/15/1998 FY98: \$0 Total: \$56,000
Prin. Invest.: D MITRA
Tech. Officer: JSC/D HOLLAND
CASE Category: 49 - ENGINEERING, OTHER

NCC 2 5257 TEXAS TECH UNIVERSITY **9035**
INFORMATION INTEGRATION IN JUDGEMENTS OF TEMPORAL RANGE
 03/02/1998 - 09/30/1998 FY98: \$49,992 Total: \$49,992
Prin. Invest.: P R DELUCIA
Tech. Officer: ARC/M K KAISER
CASE Category: 69 - PSYCHOLOGY, OTHER

NGT 5 50151 TEXAS TECH UNIVERSITY **9036**
RE-ENGINEERING COMPUTER NETWORKS: PLANNING AND IM OGY
 09/11/1997 - 09/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: S B YADAV
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1916 UNIV HOUSTON-HOUSTON **9037**
AN ADVANCED MOMENTUM WHEEL FOR MINIATURE SATELLITE
 04/18/1997 - 10/18/1998 FY98: \$0 Total: \$90,000
Prin. Invest.: W CHU
Tech. Officer: LARC/J JUANG, LARC/M R KOCH
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 2 1089 UNIV HOUSTON-HOUSTON **9038**
**AN EVALUATION OF COLLAGEN METABOLISM IN NON-HUMAN PRIMATES
 ASSOCIATED WITH THE BION SPACE PROGRAM...**
 10/17/1996 - 02/28/1999 FY98: \$0 Total: \$209,417
Prin. Invest.: A C VAILAS, D A MARTINEZ
Tech. Officer: ARC/C M WINGET, ARC/G A JAHNS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1840 UNIV HOUSTON-HOUSTON **9039**
**TWO-PHASE GAS-LIQUID FLOWS IN MICROGRAVITY: EXPER IMENTAL
 AND THEORETICAL INVESTIGATION OF ANNULAR**
 05/02/1996 - 05/01/2000 FY98: \$80,000 Total: \$220,000
Prin. Invest.: V BALAKOTAIAH, S JAYAWARDENA
Tech. Officer: LERC/B S MOTIL
CASE Category: 46 - MECHANICALENGR

NAG 5 4004 UNIV HOUSTON-HOUSTON **9040**
RNA EVOLUTION
 03/06/1997 - 01/30/1998 FY98: \$0 Total: \$69,000
Prin. Invest.: D E FOX
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4765 UNIV HOUSTON-HOUSTON **9041**
LL CHODRITES
 06/06/1997 - 05/31/1999 FY98: \$26,000 Total: \$51,674
Prin. Invest.: D M REID
Tech. Officer: GSFC/D NAVA
CASE Category: 11 - ASTRONOMY

NAG 5 5126 UNIV HOUSTON-HOUSTON **9042**
GROUND AND BALLOON-BORNE OBSERVATIONS OF SPRITES AND JETS
 07/02/1997 - 01/31/1999 FY98: \$141,912 Total: \$277,016
Prin. Invest.: E BERING
Tech. Officer: GSFC/E BERING
CASE Category: 13 - PHYSICS

NAG 8 1363 UNIV HOUSTON-HOUSTON **9043**
"EPITAXIAL GROWTH OF PROTEIN CRYSTALS ON SELF-ASSEMBLED MONOLAYERS"
 06/02/1997 - 11/30/1998 FY98: \$115,000 Total: \$189,000
Prin. Invest.: J M FRIEDMAN
Tech. Officer: MSFC/C R TALLEY, MSFC/B G PENN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 713 UNIV HOUSTON-HOUSTON **9044**
DEVELOPMENT ADVANCED TRAINING TECHNOLOGIES
 09/30/1993 - 02/28/1998 FY98: -\$10,919 Total: \$443,246
Prin. Invest.: R B LOFTIN
Tech. Officer: JSC/C CULBERT
CASE Category: 22 - COMPUTER SCIENCE

NAG 9 741 UNIV HOUSTON-HOUSTON **9045**
OPERATION HIGH TEMPERATURE SUPERCONDUCTING DEVICES IN SPACE WITHOUT CRYOGENS
 05/31/1994 - 12/01/1997 FY98: -\$170 Total: \$59,830
Prin. Invest.: P C CHU
Tech. Officer: JSC/K KRISHEN
CASE Category: 13 - PHYSICS

NAG 9 853 UNIV HOUSTON-HOUSTON **9046**
SOLID ABSORBENT HEAT PUMP SYSTEM
 11/14/1995 - 07/30/1998 FY98: \$0 Total: \$59,418
Prin. Invest.: N SHAMSUNDAR
Tech. Officer: JSC/JD CORNWELL
CASE Category: 46 - MECHANICAL ENGR

NAG 9 867 UNIV HOUSTON-HOUSTON **9047**
NASA-ASEE SUMMER FACULTY FELLOWSHIPS
 05/09/1996 - 04/30/2000 FY98: \$390,000 Total: \$863,000
Prin. Invest.: R B BANNEROT
Tech. Officer: JSC/D SICKOREZ
CASE Category: 46 - MECHANICAL ENGR

NAG 9 887 UNIV HOUSTON-HOUSTON **9048**
NONLINEAR DYNAMICAL ANALYSIS OF PRE AND POST FLIGHT ELECTROMYOGRAM ANALYSIS
 07/12/1996 - 01/31/1998 FY98: -\$20 Total: \$59,980
Prin. Invest.: D H JANSEN
Tech. Officer: JSC/L WEBSTER
CASE Category: 56 - MEDICAL

NAG 9 888 UNIV HOUSTON-HOUSTON **9049**
SUPPORT SYSTEM FOR TRAINING OF CREW MEDICAL OFFICE RS
 07/25/1996 - 10/02/1998 FY98: -\$71 Total: \$57,929
Prin. Invest.: D JEN-GWO CHEN
Tech. Officer: JSC/L WEBSTER
CASE Category: 22 - COMPUTER SCIENCE

NAG 9 892 UNIV HOUSTON-HOUSTON **9050**
DETECTION OF HIGH VOLTAGE SPACECRAFT CHARGING AND DEFECTS IN POWER TRANSMISSION SYSTEMS
 07/19/1996 - 10/31/1998 FY98: \$0 Total: \$59,500
Prin. Invest.: D E BORING
Tech. Officer: JSC/T JEFFCOAT
CASE Category: 45 - ELECTRICAL ENGR

NAG 9 896 UNIV HOUSTON-HOUSTON **9051**
SIMULATION ON COMPRESSABLE HIGH SPEED FLOW
 08/09/1996 - 07/31/1998 FY98: \$0 Total: \$35,000
Prin. Invest.: D E FITZGIBBON, R SANDERS
Tech. Officer: JSC/C P LI
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 890 UNIV HOUSTON-HOUSTON **9052**
SUPERCONDUCTING MAGNETS USED IN MAGNETIC B/T SYSTEMS
 09/10/1995 - 09/30/1997 FY98: -\$45 Total: \$59,955
Prin. Invest.: D WEINSTEIN
Tech. Officer: JSC/D ARNDT
CASE Category: 46 - MECHANICAL ENGR

NAG 9 932 UNIV HOUSTON-HOUSTON **9053**
CLASSIFICATION INDEXING RETRIEVAL OF VIDEO MEDIA
 08/27/1993 - 05/31/1997 FY98: \$0 Total: \$70,500
Prin. Invest.: D G JOHNSON
Tech. Officer: JSC/C PITTMAN
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 934 UNIV HOUSTON-HOUSTON **9054**
CHARACTERIZATION OF EXHAUST PLUME OF VARIABLE IMPULSE PLASMA ROCKET
 09/23/1993 - 09/09/1998 FY98: \$0 Total: \$59,500
Prin. Invest.: D BERING
Tech. Officer: JSC/F CHANG-DIAZ
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 935 UNIV HOUSTON-HOUSTON **9055**
USE OF HIGH-T SUPERCONDUCTING MAGNETIC SENSORS
 10/31/1996 - 05/31/1998 FY98: \$0 Total: \$58,500
Prin. Invest.: J H MILLER, JR.
Tech. Officer: JSC/G ECORD
CASE Category: 47 - METAL & MATERIALS ENGR

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| NAG 9 930 UNIV HOUSTON-HOUSTON 9056 VIRTUAL ENVIRONMENT TECHNOLOGY LAB INFRASTRUCTURE ADVANCE- MENT 04/01/1997 - 09/30/1998 FY98: \$0 Total: \$246,000 Prin. Invest.: R B LOFTIN Tech. Officer: JSC/R J SAVELY CASE Category: 22 - COMPUTER SCIENCE | NGT 90245 UNIV HOUSTON-HOUSTON 9065 UNDERGRADUATE STUDENT RESEARCHERS PROGRAM (UMF) 05/16/1994 - 08/14/1997 FY98: -\$12,000 Total: \$36,000 Prin. Invest.: G F PASKUSZ Tech. Officer: HQ/D K RUSSELL CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAG 9 985 UNIV HOUSTON-HOUSTON 9057 INVESTIGATE & DEVELOP ADVANCED TRAINING TECHN 01/16/1998 - 09/30/1998 FY98: \$542,126 Total: \$542,126 Prin. Invest.: B LOFTIN Tech. Officer: JSC/R SAVELY CASE Category: 22 - COMPUTER SCIENCE | NGT 2 52235 UNIV HOUSTON-HOUSTON 9066 DYNAMICS & CONTROL OF TURBULENT BOUNDARY LAYERS: FURTHER STUDIES 09/15/1997 - 06/30/1998 FY98: \$14,416 Total: \$16,500 Prin. Invest.: W SCHOPPA, F HASSAIN Tech. Officer: ARC/K R SHARIFF CASE Category: 41 - AERONAUTICAL ENGR |
| NAG 9 1012 UNIV HOUSTON-HOUSTON 9058 TWO PHASE SYSTEMS FOR MARS-G 05/20/1998 - 05/20/1999 FY98: \$49,394 Total: \$49,394 Prin. Invest.: L C WHITTE Tech. Officer: JSC/J D CORNWELL CASE Category: 46 - MECHANICAL ENGR | NGT 3 52314 UNIV HOUSTON-HOUSTON 9067 GRADUATE STUDENT RESEARCHERS PROGRAM 08/06/1996 - 08/14/1999 FY98: \$22,000 Total: \$66,000 Prin. Invest.: V BALAKOTAIH Tech. Officer: LERC/D MONTEGANI CASE Category: 43 - CHEMICAL ENGR |
| NAG 9 1055 UNIV HOUSTON-HOUSTON 9059 URBAN EXPERIENCE PROGRAM 09/22/1998 - 09/21/1999 FY98: \$35,000 Total: \$35,000 Prin. Invest.: T MINDIOLA, JR. Tech. Officer: JSC/LARMENDARIZ CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NGT 5 50182 UNIV HOUSTON-HOUSTON 9068 PRIMORDIAL PEPTIDE SYNTHESIS IN THE ORIGIN OF LIFE 05/27/1998 - 06/30/1999 FY98: \$22,000 Total: \$22,000 Prin. Invest.: G E FOX Tech. Officer: HQ/A NURRIDIN CASE Category: 12 - CHEMISTRY |
| NAGW 977 UNIV HOUSTON-HOUSTON 9060 ESTAB CENTER FOR COMM LEVEL OF SPACE 09/01/1986 - 12/31/1997 FY98: \$0 Total: \$40,673,186 Prin. Invest.: C W CHU, J T NORRIS Tech. Officer: HQ/W A ORAN, HQ/A VILLAMIL CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) | NGT 5 90044 UNIV HOUSTON-HOUSTON 9069 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR) 02/03/1997 - 08/14/1998 FY98: \$0 Total: \$22,200 Prin. Invest.: G F PASKUSZ Tech. Officer: GSFC/R LAWRENCE CASE Category: 46 - MECHANICAL ENGR |
| NCC 8 127 UNIV HOUSTON-HOUSTON 9061 FOR RESEARCH "CONTINUATION OF SUPPORT FOR THE COMMERCIAL SPACE CENTER, SPACE VACUUM EPITAXY CTR 01/21/1997 - 10/14/1998 FY98: \$1,000,000 Total: \$4,500,000 Prin. Invest.: J R WATKINS Tech. Officer: MSFC/J R WATKINS CASE Category: 47 - METAL & MATERIALS ENGR | NGT 9 27 UNIV HOUSTON-HOUSTON 9070 INVESTIGATION OF HALLOW CATHODE HI ENERGY ION PHENOM ... 08/20/1997 - 07/31/1998 FY98: \$0 Total: \$22,000 Prin. Invest.: E BERING Tech. Officer: JSC/D G SICKOREZ CASE Category: 13 - PHYSICS |
| NCC 9 70 UNIV HOUSTON-HOUSTON 9062 UH NASA TECHNOLOGY COMMERCIALIZATION 03/24/1998 - 03/23/2001 FY98: \$273,000 Total: \$273,000 Prin. Invest.: A V VAILLAS Tech. Officer: JSC/H L DAVIS CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NGT44 5803 UNIV HOUSTON-HOUSTON 9071 TRAINING GRANT FOR CONDUCTING SUMMER FACULTY FELLOWSHIP PROGRAM 01/01/1984 - 03/31/1997 FY98: -\$1 Total: \$2,370,912 Prin. Invest.: R B BANNEROT Tech. Officer: HQ/A S MCGEE, HQ/E T SCHWARTZ CASE Category: 49 - ENGINEERING, OTHER |
| NGT 51022 UNIV HOUSTON-HOUSTON 9063 GRADUATE STUDENT RESEARCHERS PROGRAM 05/14/1993 - 07/31/1998 FY98: \$0 Total: \$88,000 Prin. Invest.: F HUSSAIN Tech. Officer: ARC/M MOORE CASE Category: 46 - MECHANICAL ENGR | NAG 5 6009 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 9072 "FUNCTIONAL CORRELATES OF GENETIC EXPRESSION INDUC 08/28/1997 - 04/30/1999 FY98: \$50,314 Total: \$173,595 Prin. Invest.: A PERACHIO Tech. Officer: HQ/T SCOTT CASE Category: 59 - LIFE SCIENCE, OTHER |
| NGT 70250 UNIV HOUSTON-HOUSTON 9064 GRADUATE STUDENT RESEARCHERS PROGRAM 05/08/1992 - 06/30/1997 FY98: -\$74 Total: \$87,926 Prin. Invest.: T GOLDING Tech. Officer: HQ/D K RUSSELL CASE Category: 13 - PHYSICS | NAG 9 859 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 9073 SPACE MEDICINE FELLOWSHIP PROPOSAL 06/10/1996 - 11/17/1998 FY98: \$104,188 Total: \$136,188 Prin. Invest.: W A WASSON Tech. Officer: JSC/R BILLICA CASE Category: 56 - MEDICL |

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| NAG 9 901 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 9074 INFLUENCE OF SIMULATED MICROVITY ON YEAST CYTOSKELETON & VIRULENCE FACTORS 08/29/1996 - 01/31/1999 FY98: \$0 Total: \$29,800 Prin. Invest.: M R MCGINNIS Tech. Officer: JSC/D L PIERSON CASE Category: 54 - ENVIRONMENTAL BIOLOGY | NAG 2 952 UNIV OF TEXAS-HLTH SCI CTR-SAN ANTONIO 9082 DEVELOPMENT OF BESTIBULAR ORGANS IN MICROGRAVITY 12/16/1994 - 11/30/1998 FY98: \$168,829 Total: \$549,782 Prin. Invest.: M L WIEDERHOLD Tech. Officer: ARC/W E HINDS, ARC/C M WINGET CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) |
| NAGW 4032 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 9075 COUNTERMEASURES FOR MICROGRAVITY - INDUCED MUSCLE ATROPHY 06/06/1994 - 04/14/1998 FY98: \$0 Total: \$570,000 Prin. Invest.: C A STUART, NONE Tech. Officer: HQ/F M SULZMAN CASE Category: 56 - MEDICL | NAG10 180 UNIV OF TEXAS-HLTH SCI CTR-SAN ANTONIO 9083 FUNCTIONAL DEVELOPMENT IN A MODEL VESTIBULAR SYS 01/18/1996 - 10/31/1998 FY98: \$63,178 Total: \$415,175 Prin. Invest.: M L WIEDERHOLD Tech. Officer: KSC/W M KNOTT CASE Category: 59 - LIFE SCIENCE, OTHER |
| NAGW 5064 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 9076 FUNCTIONAL CORRELATES OF GENETIC EXPRESSION INDUCED BY HYPERGRAVITY 05/21/1996 - 12/30/1997 FY98: \$0 Total: \$123,082 Prin. Invest.: A A PERACHIO Tech. Officer: HQ/V THORNE CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) | NAG 5 5871 UNIV OF TEXAS-PAN AMERICAN 9084 CENTER FOR REMOTE SENSING IN THE LOWER RIO GRANDE VALLEY OF TEXAS 01/12/1998 - 01/14/1999 FY98: \$69,932 Total: \$69,932 Prin. Invest.: F JUDD Tech. Officer: GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 9 97147 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 9077 PROTEIN TURNOVER DURING SPACE FLIGHT 02/24/1997 - 02/10/2000 FY98: \$120,000 Total: \$195,000 Prin. Invest.: A FERRANDO Tech. Officer: JSC/A LEE CASE Category: 56 - MEDICL | NAG 9 857 UNIV OF TEXAS-PAN AMERICAN 9085 DEVELOPMENT OF MINORITY INSTITUTION RESEARCH 12/11/1995 - 12/31/1998 FY98: \$79,040 Total: \$497,640 Prin. Invest.: E LEMASTER, R H FOWLER Tech. Officer: JSC/L M ARMEDARIZ CASE Category: 32 - GEOLOGICAL SCIENCE |
| NGT 51666 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 9078 GRADUATE STUDENT RESEARCHERS PROGRAM 07/17/1996 - 06/30/1997 FY98: \$0 Total: \$22,000 Prin. Invest.: A BARRETT Tech. Officer: HQ/G LE SANE CASE Category: 56 - MEDICL | NGT 5 90132 UNIV OF TEXAS-PAN AMERICAN 9086 USAR 02/14/1997 - 08/31/1998 FY98: \$0 Total: \$161,720 Prin. Invest.: W C SHOCKLEY Tech. Officer: GSFC/R LAWRENCE CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NGT 2 52216 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 9079 IPSI LATERAL & CONTRALATERAL Efferent CONTROL OF VESTIBULAR PRIMARY AFFERENT RESPONSE DYNAMICS 08/05/1996 - 06/30/1999 FY98: \$22,000 Total: \$66,000 Prin. Invest.: A A PERACHIO, NONE Tech. Officer: ARC/N G DAUNTON, ARC/M L CORCORAN CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) | NAG 2 902 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 9087 SPACE FLIGHT, STRESS & PLASTICITY 02/07/1997 - 08/31/1998 FY98: \$75,000 Total: \$331,424 Prin. Invest.: S T BRADY Tech. Officer: ARC/W E HINDS, ARC/C M WINGET CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) |
| NGT 5 50071 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 9080 EFFECTS OF MICROGRAVITY ON CELL MEDIATED IMMUNITY TENDENT VIRAL INFECTIONS 09/02/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000 Prin. Invest.: D BARRETT Tech. Officer: GSFC/L CHAMBERS CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NAG 5 4816 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 9088 THE ROLE OF CARDIAC MECHANICS IN BLOOD PRESSURE REGULATORY STRESS 06/27/1997 - 09/30/1999 FY98: \$185,000 Total: \$324,000 Prin. Invest.: B LEVINE Tech. Officer: GSFC/V SCHNEIDER CASE Category: 59 - LIFE SCIENCE, OTHER |
| NAG 2 730 UNIV OF TEXAS-HLTH SCI CTR-SAN ANTONIO 9081 EARLY DEVELOPMENT OF A GRAVITY-SENSING ORGAN IN MICROGRAVITY 08/20/1991 - 01/31/1997 FY98: \$1,627 Total: \$617,609 Prin. Invest.: M L WIEDERHOLD Tech. Officer: ARC/C M WINGET, ARC/C M WINGET CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR) | NAG 5 6317 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 9089 MECHANISM OF PHYSIOLOGICAL ADAPTATION TO MICROGRAVITY 10/23/1997 - 06/14/1999 FY98: \$1,130,000 Total: \$1,130,000 Prin. Invest.: G BLOMQUIST Tech. Officer: GSFC/L P CHAMBERS CASE Category: 59 - LIFE SCIENCE, OTHER |

NAG 9 1033 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS **9090**
MICROCIRCULATORY ADJUSTMENT TO SIMULATED MICROGRAVITY EXPOSURE IN HUMANS
 07/16/1998 - 07/15/1999 FY98: \$54,000 Total: \$54,000
Prin. Invest.: C G CRANDALL
Tech. Officer: JSC/C F SAWIN
CASE Category: 56 - MEDICL

NAGW 3582 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS **9091**
MECHANISMS OF PHYSIOLOGICAL ADAPTATION TO MICROGRAVITY
 07/19/1993 - 05/31/1998 FY98: \$0 Total: \$4,304,000
Prin. Invest.: C G BLOMQUIST
Tech. Officer: HQ/R J WHITE
CASE Category: 56 - MEDICL

NAG 9 19429 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS **9092**
INTEGRATION OF NEURAL CARDIOVASCULAR CONTROL IN SPACE
 10/31/1995 - 10/31/1999 FY98: \$400,000 Total: \$640,000
Prin. Invest.: C G BLOMQUIST
Tech. Officer: JSC/A M LEE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 19540 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS **9093**
ADAPTIVE CHANGES IN CARDIOVASCULAR CONTROL AT MICROGRAVITY
 02/13/1996 - 11/30/1998 FY98: \$535,000 Total: \$835,000
Prin. Invest.: C G BLOMQUIST
Tech. Officer: JSC/C M SMITH
CASE Category: 56 - MEDICL

NAG 8 1347 UNIV. OF TEXAS MD ANDERSON CANCER CENTER **9094**
USE OF NASA BIOREACTORS IN A NOVEL SCHEME FOR IMMUNIZATION AGAINST CANCER
 06/18/1997 - 11/30/1998 FY98: \$123,913 Total: \$188,913
Prin. Invest.: C A SAVARY
Tech. Officer: MSFC/C R TALLEY, JSC/T J GOODWIN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1348 UNIV. OF TEXAS MD ANDERSON CANCER CENTER **9095**
APPLICATION OF BIOREACTOR TECHNOLOGY ANALYSIS AND COUNTER MEASURE DEVELOPMENT OF MICROGRAVITY
 06/18/1997 - 11/30/2000 FY98: \$72,381 Total: \$142,381
Prin. Invest.: E A GRIMM
Tech. Officer: MSFC/C R TALLEY, JSC/T J GOODWIN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1261 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9096**
RELATIONSHIP OF MORPHOGENESIS & MINERALIZATION TO GRAVITY IN SPACEFLOWN ALGAE
 09/01/1998 - 11/30/1998 FY98: \$20,000 Total: \$20,000
Prin. Invest.: P J DUKE
Tech. Officer: ARC/C M WINGET, ARC/P D SAVAGE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 4710 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9097**
GRAVITY AND THE REGULATION OF A CENTRAL GROWTH FAC
 06/11/1997 - 01/31/1999 FY98: \$0 Total: \$131,640
Prin. Invest.: E DURBAN
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6176 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9098**
3RD YEAR RENEWAL OF GRANT # NAGW 4479 FOR PHYSIOLOGICAL DECOMPRESSION-INDUCED VENOUS BUBBLES
 07/28/1997 - 03/31/1999 FY98: \$0 Total: \$100,859
Prin. Invest.: B BUTLER
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 813 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9099**
EFFECT OF MICROGRAVITY ON HUMAN SKIN EQUIVALENT
 08/11/1995 - 10/08/1998 FY98: \$0 Total: \$239,000
Prin. Invest.: D DIMITRIJEVICH
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 834 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9100**
USE OF ROTATING WALL VESSEL TO FACILITATE CULTURE OF NORWALK VIRUS
 08/22/1995 - 08/31/1999 FY98: \$178,000 Total: \$700,000
Prin. Invest.: P JOHNSON
Tech. Officer: JSC/N PELLIS
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 865 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9101**
IN VIVO GAS PHASE FORMATION/GROWTH
 04/11/1996 - 01/30/1999 FY98: \$0 Total: \$60,000
Prin. Invest.: B BUTLER
Tech. Officer: JSC/D POWELL
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 866 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9102**
TISSUE GAS MICRONUCLEI FUNCTION & THEIR LIFETIMES
 05/01/1996 - 10/20/1998 FY98: \$0 Total: \$49,288
Prin. Invest.: D FIFE
Tech. Officer: JSC/D POWELL
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 903 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9103**
EPIDEMIOLOGY OF MICROORGANISMS IN SPACE FLIGHT ENVIRONMENT
 08/29/1996 - 09/29/1998 FY98: \$0 Total: \$58,792
Prin. Invest.: G M WEINSTOCK
Tech. Officer: JSC/D L PIERSON
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 940 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9104**
LIFETIMES OF VIVO GAS BUBBLE MICRONUCLEI
 04/15/1997 - 04/15/1999 FY98: \$0 Total: \$130,000
Prin. Invest.: B BUTLER
Tech. Officer: JSC/M POWELL
CASE Category: 56 - MEDICL

NAG 9 952 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9105**
EXERCISE DURING PREBREATHE: REDUCTION OF THE H-2-O PRE-BREATHE TIME
 08/14/1997 - 08/14/1999 FY98: \$0 Total: \$54,000
Prin. Invest.: C FIFE
Tech. Officer: JSC/M R POWELL
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 1040 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9106**
EFFECTS OF CIRCADIAN RHYTHMS ON DEPRESSION OUTCOME
 06/22/1998 - 06/30/1999 FY98: \$32,000 Total: \$32,000
Prin. Invest.: B BUTLER
Tech. Officer: JSC/C SAWIN
CASE Category: 56 - MEDICL

NAGW 3908 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9107**
NAGW-3908/B UNIV. TX HEALTH SCI CTR HOUSTON "BIOCH EM. ADAPT. OF ANTI-GRAVITY MUSCLE..ATROPHY" 12 MO
 03/31/1994 - 02/28/1998 FY98: \$0 Total: \$260,793
Prin. Invest.: F W BOOTH
Tech. Officer: HQ/F M SULZMAN
CASE Category: 51 - BIOLOGY(EXCLUDING ENVIR)

NAGW 4479 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9108**
PHYSIOLOGICAL EFFECTS OF DECOMPRESSION-INDUCED VENOUS BUBBLES
 05/10/1995 - 05/31/1998 FY98: \$0 Total: \$190,481
Prin. Invest.: B D BUTLER
Tech. Officer: HQ/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4990 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9109**
HOX GENES AND PATTERN FORMATION IN SPACE FLOWN MOUSE LIMB-BUDS
 03/07/1996 - 09/30/1997 FY98: \$0 Total: \$69,999
Prin. Invest.: D J DUKE
Tech. Officer: HQ/F SULZMAN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 9 19439 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9110**
MICROBIAL INTERACTION IN THE MIR SPACE STATION ENVIRONMENT
 12/19/1995 - 12/13/1998 FY98: \$154,000 Total: \$449,474
Prin. Invest.: G WEINSTOCK
Tech. Officer: JSC/A PLAZA
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 50084 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9111**
IMMUNOTOXICITY OF HYDRAZINE/GRADUATE STUDENT RESEARCHER JUDITH A. LATCH
 09/17/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: A HOLIAN
Tech. Officer: GSFC/L P CHAMBERS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 25 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON **9112**
ANTIGEN SPECIFIC IMMUNE DISFUNCTION ASSOCIATED W/ CHRONIC STRESS
 06/25/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: G MARSHALL, JR., S K AGARWAL
Tech. Officer: JSC/C F SAMS
CASE Category: 56 - MEDICL

NAG 9 802 UNIVERSITY OF HOUSTON - CLEAR LAKE **9113**
MODELING AND PREDICTION OF DECOMPRESSION SICKNESS
 08/02/1995 - 02/05/1999 FY98: \$653 Total: \$56,462
Prin. Invest.: R S CHHIKARA
Tech. Officer: JSC/M POWELL
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 9 16 UNIVERSITY OF HOUSTON - CLEAR LAKE **9114**
RESEARCH INSTITUTE FOR COMPUTING SYSTEMS
 06/09/1996 - 06/30/1997 FY98: \$0 Total: \$42,186,648
Prin. Invest.: E T DICKERSON, A G HOUSTON
Tech. Officer: JSC/R B MACDONALD, JSC/J R GARMAN
CASE Category: 22 - COMPUTER SCIENCE

NCC 9 30 UNIVERSITY OF HOUSTON - CLEAR LAKE **9115**
RESEARCH FOR COMPUTING & INFORMATION SYSTEMS
 08/08/1994 - 09/30/1998 FY98: \$1,819,606 Total: \$9,840,771
Prin. Invest.: E T DICKERSON
Tech. Officer: JSC/R T SAVELY
CASE Category: 22 - COMPUTER SCIENCE

NCC 9 72 UNIVERSITY OF HOUSTON - CLEAR LAKE **9116**
TEACHING GEOGRAPHY WITH SPACE AGE TECHNOLOGY
 07/01/1998 - 08/14/1998 FY98: \$15,000 Total: \$15,000
Prin. Invest.: J MAIER
Tech. Officer: JSC/L LENOX
CASE Category: 32 - GEOLOGICAL SCIENCE

NCC 9 76 UNIVERSITY OF HOUSTON - CLEAR LAKE **9117**
STATISTICAL PROCESS CONTROL OF SHUTTLE MAINT OPS
 09/24/1998 - 09/23/1999 FY98: \$32,685 Total: \$32,685
Prin. Invest.: R S CHHIKARA
Tech. Officer: JSC/JARRELL
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 9 990 UNIVERSITY OF HOUSTON - DOWNTOWN **9118**
EARLY LIFE FORMS
 11/25/1997 - 05/31/1998 FY98: \$15,500 Total: \$15,500
Prin. Invest.: P A SMITH
Tech. Officer: JSC/D GSICKOREZ
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1618 UNIVERSITY OF HOUSTON - DOWNTOWN **9119**
PRECOLLEGE AWARD FOR EXCELLENCE PACE/MSET
 05/01/1993 - 04/30/1999 FY98: \$99,494 Total: \$99,494
Prin. Invest.: R ALO
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 2605 UNIVERSITY OF NORTH TEXAS **9120**
EMERGENCY AND CRISIS MANAGEMENT: A REMOTE SENSING APPLICATION
 03/10/1999 - 03/14/1999 FY98: \$0 Total: \$263,000
Prin. Invest.: D NEAL
Tech. Officer: GSFC/F FLASER
CASE Category: 11 - ASTRONOMY

NAG 5 4831 UNIVERSITY OF NORTH TEXAS **9121**
THE PRODUCTION, CONCENTRATION, AND ARRANGEMENT OF INORGANIC HOSTS
 06/19/1997 - 08/31/1998 FY98: \$0 Total: \$70,000
Prin. Invest.: D S BRATERMAN
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NASA'S UNIVERSITY PROGRAM

NAGW 4620 UNIVERSITY OF NORTH TEXAS **9122**
THE PRODUCTION, CONCENTRATION, & ARRANGEMENT OF PR EBIOTIC
MATERIALS BY INORGANIC HOSTS
 07/14/1995 - 08/31/1997 FY98: \$13 Total: \$120,013
Prin. Invest.: P S BRATEMAN
Tech. Officer: HQ/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 3744 UNIV OF NORTH TEXAS HLTH SCI.CTR AT FT.WORTH **9123**
MICROGRAVITY: SLEEP DEPRIVATION AND AUTONOMIC CONT
 03/11/1997 - 03/14/1999 FY98: \$134,056 Total: \$263,844
Prin. Invest.: M SMITH
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4668 UNIV OF NORTH TEXAS HLTH SCI.CTR AT FT.WORTH **9124**
CARTOID BAROREFLEX FUNCTION DURING PROLONGED EXERC
 06/17/1997 - 05/31/2000 FY98: \$99,948 Total: \$201,905
Prin. Invest.: P B RAVEN
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 5038 UNIV OF NORTH TEXAS HLTH SCI.CTR AT FT.WORTH **9125**
MICROGRAVITY: SLEEP DEPRIVATION AND AUTONOMIC CONT ROL
 04/30/1996 - 12/31/1996 FY98: \$0 Total: \$100,659
Prin. Invest.: M L SMITH
Tech. Officer: HQ/F SULZMAN, HQ/V THORNE
CASE Category: 56 - MEDICL

NGT 5 50179 UNIV OF NORTH TEXAS HLTH SCI.CTR AT FT.WORTH **9126**
SLEEP RESTRICTION AND MECHANISMS OF ORTHOSTATIC TO LERANCE
 10/31/1997 - 08/31/2000 FY98: \$44,000 Total: \$44,000
Prin. Invest.: M SMITH
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1798 UNIVERSITY OF TEXAS - ARLINGTON **9127**
IGNITION SYSTEM DEVELOPMENT FOR PULSED DETONATION ENGINES-
NASA/UTA CENTER FOR HYPERSONICS
 01/24/1996 - 12/31/1997 FY98: \$0 Total: \$300,000
Prin. Invest.: D R WILSON
Tech. Officer: LARC/S MASSENBERG
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1121 UNIVERSITY OF TEXAS - AUSTIN **9128**
MODELING THE GROWTH AND INTERACTION OF FRACTURES FDP
 03/26/1990 - 11/30/1998 FY98: \$57,953 Total: \$501,521
Prin. Invest.: M E MEAR
Tech. Officer: LARC/J C NEWMAN, JR., LARC/C E HARRIS
CASE Category: 46 - MECHANICAL ENGR

NAG 2 67 UNIVERSITY OF TEXAS - AUSTIN **9129**
STUDY OF DENSITY & TEMPERATURE STRUCTURE OF CLOUDS AROUND
LOW LUMINOSITY YOUNG STARS
 09/01/1980 - 09/30/1998 FY98: \$0 Total: \$3,893,870
Prin. Invest.: P M HARVEY
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 2 1051 UNIVERSITY OF TEXAS - AUSTIN **9130**
A VERY HIGH RESOLUTION MID-INFRARED SPECTROGRAPH F OR SOFIA
 06/05/1996 - 02/28/1998 FY98: \$0 Total: \$81,445
Prin. Invest.: J H LACY
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 2 1053 UNIVERSITY OF TEXAS - AUSTIN **9131**
FAR-INFRARED EMISSION-LINE OBSERVATIONS FROM THE K AO
 06/17/1996 - 02/28/1999 FY98: \$0 Total: \$10,760
Prin. Invest.: H L DINERSTEIN
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 2 1055 UNIVERSITY OF TEXAS - AUSTIN **9132**
HIGH RESOLUTION FAR-INFRARED STUDIES OF COMPACT REGIONS OF
STAR-FORMING MOLECULAR CLOUDS
 07/01/1996 - 01/31/1998 FY98: \$0 Total: \$20,211
Prin. Invest.: N J EVANS, II
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 2 1076 UNIVERSITY OF TEXAS - AUSTIN **9133**
FAR INFRARED CONSTRAINTS ON CIRCUMSTELLAR DUST SHE LLS
 08/14/1996 - 05/31/1998 FY98: \$0 Total: \$30,000
Prin. Invest.: P M HARVEY
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 2 1083 UNIVERSITY OF TEXAS - AUSTIN **9134**
A DIFFRACTION-LIMITED, MULTICOLOR
 08/23/1996 - 05/31/1999 FY98: \$0 Total: \$112,290
Prin. Invest.: P M HARVEY
Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE
CASE Category: 11 - ASTRONOMY

NAG 3 1839 UNIVERSITY OF TEXAS - AUSTIN **9135**
INSTABILITIES IN SURFACE-TENSION DRIVEN CONVECTION
 05/06/1996 - 05/05/2000 FY98: \$46,000 Total: \$255,000
Prin. Invest.: H L SWINNEY
Tech. Officer: LERC/AT CHAI
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 3 1876 UNIVERSITY OF TEXAS - AUSTIN **9136**
DIFFUSION FLAME STRUCTURE, SHAPE, EXTINCTION: GEOMETRICAL
CONSIDERATIONS
 06/16/1996 - 06/16/1998 FY98: \$40,508 Total: \$101,666
Prin. Invest.: O A EZEKEYE
Tech. Officer: LERC/D P STOCKER, LERC/H D ROSS
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1901 UNIVERSITY OF TEXAS - AUSTIN **9137**
PRECISION MEASUREMENTS WITH TRAPPED LASER-COOLED ATOMS IN
A MICROGRAVITY ENVIRONMENT
 06/14/1996 - 06/13/2000 FY98: \$65,000 Total: \$215,000
Prin. Invest.: D J HEINZEN
Tech. Officer: LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 5 1603 UNIVERSITY OF TEXAS - AUSTIN **9138**
HST - GTO
 05/20/1991 - 10/31/1999 FY98: \$450,000 Total: \$8,476,785
Prin. Invest.: W H JEFFERYS
Tech. Officer: GSFC/E O KURT
CASE Category: 11 - ASTRONOMY

NAG 5 1616 UNIVERSITY OF TEXAS - AUSTIN **9139**
STELLAR SPECTROSCOPY AND THE HUBBLE SPACE TELESCOPE
 05/24/1991 - 10/31/1998 FY98: \$0 Total: \$484,054
Prin. Invest.: D L LAMBERT
Tech. Officer: GSFC/S SOBIESKI
CASE Category: 11 - ASTRONOMY

NAG 5 1855 UNIVERSITY OF TEXAS - AUSTIN **9140**
HUBBLE SPACE TELESCOPE (HST) GUARANTEED TIME OBSERVATION
 01/02/1992 - 01/14/1999 FY98: \$0 Total: \$522,000
Prin. Invest.: L M TRAFTON
Tech. Officer: GSFC/A SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 1929 UNIVERSITY OF TEXAS - AUSTIN **9141**
ESTABLISHMENT OF A FLINN SITE IN WEST TEXAS
 03/04/1992 - 10/31/1997 FY98: \$0 Total: \$143,498
Prin. Invest.: C R WILSON
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 1936 UNIVERSITY OF TEXAS - AUSTIN **9142**
TOWARD 10 (9) GPS GEODESY: VECTOR BASELINES, EARTH ROTATION AND REFERENCE FRAMES
 03/12/1992 - 03/14/1997 FY98: \$0 Total: \$466,671
Prin. Invest.: R E SCHUTZ
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 1939 UNIVERSITY OF TEXAS - AUSTIN **9143**
STUDY OF CRUSTAL DEFORMATION IN THE INDIAN-EURASIAN COLLISION ZONE
 03/12/1992 - 04/14/1999 FY98: \$54,000 Total: \$368,000
Prin. Invest.: B TAPLEY
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 2146 UNIVERSITY OF TEXAS - AUSTIN **9144**
LAGEOS SATELLITE LASER RANGING DATA ANALYSIS
 12/14/1992 - 09/30/1998 FY98: \$96,136 Total: \$551,519
Prin. Invest.: R J EARNES, M M WATKINS
Tech. Officer: GSFC/J J DEGNAN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 2497 UNIVERSITY OF TEXAS - AUSTIN **9145**
DENSE LINEAR ALGEBRA ALGORITHMS BASED ON PARALLEL BLAS
 02/02/1994 - 11/30/1998 FY98: \$0 Total: \$90,000
Prin. Invest.: R A VAN DE GEIJN
Tech. Officer: GSFC/J R FISHER
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2511 UNIVERSITY OF TEXAS - AUSTIN **9146**
APPLICATION OF MASSIVELY PARALLEL PROCESSING TECHNIQUES FOR LEAST SQUARES PROBLEMS IN SATELLITE...
 02/08/1994 - 02/14/1997 FY98: \$0 Total: \$90,000
Prin. Invest.: B E SCHUTZ
Tech. Officer: GSFC/J R FISHER
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2773 UNIVERSITY OF TEXAS - AUSTIN **9147**
SELECTED DYNAMO PROBLEMS IN ASTROPHYSICS
 10/26/1994 - 02/28/1999 FY98: \$50,000 Total: \$233,000
Prin. Invest.: E T VISHNIAC
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2785 UNIVERSITY OF TEXAS - AUSTIN **9148**
THE EVOLUTION OF THE INTERGALACTIC MEDIUM AND THE FORMATION OF GALAXIES AND LARGE-SCALE STRUCTURE...
 11/14/1994 - 12/31/1998 FY98: \$0 Total: \$255,500
Prin. Invest.: P R SHAPIRO
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2818 UNIVERSITY OF TEXAS - AUSTIN **9149**
ASTEROSEISMOLOGY OF WHITE DWARF STARS.
 12/08/1994 - 11/30/1998 FY98: \$0 Total: \$239,514
Prin. Invest.: D E WINGET
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2888 UNIVERSITY OF TEXAS - AUSTIN **9150**
COMBINE: COMBUSTION IN ASTROPHYSICS
 02/09/1995 - 02/14/1998 FY98: \$0 Total: \$420,000
Prin. Invest.: J C WHEELER
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2954 UNIVERSITY OF TEXAS - AUSTIN **9151**
DETECTING SMALL-SCALE TOPOGRAPHIC CHANGES AND RELICT GEOMORPHIC FEATURES ON BARRIER ISLANDS ETC
 06/01/1995 - 08/31/1999 FY98: \$43,000 Total: \$297,759
Prin. Invest.: J C GIBEAUT
Tech. Officer: GSFC/H V FREY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 307 UNIVERSITY OF TEXAS - AUSTIN **9152**
THEORETICAL MODELS FOR THE STELLAR MASS FUNCTION
 10/19/1995 - 10/31/1999 FY98: \$39,000 Total: \$117,000
Prin. Invest.: J M SCALO
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3027 UNIVERSITY OF TEXAS - AUSTIN **9153**
GEOPOTENTIAL DETERMINATION USING SATELLITE-TO-SATELLITE TRACKING
 10/19/1995 - 10/31/1998 FY98: \$100,000 Total: \$300,000
Prin. Invest.: B TAPLEY, NONE
Tech. Officer: GSFC/P TAYLOR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 3128 UNIVERSITY OF TEXAS – AUSTIN **9154**
THE STUDY OF TIME VARIATIONS IN THE EARTH'S GRAVITY FIELD ON GEO-
DETTIC SATELLITES
 10/19/1995 – 10/31/1997 FY98: -\$19,853 Total: \$80,147
Prin. Invest.: C K SHUM
Tech. Officer: GSFC/P TAYLOR
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 3129 UNIVERSITY OF TEXAS – AUSTIN **9155**
HIGH FREQUENCY VARIATIONS IN EARTH ORIENTATION
 10/26/1995 – 10/31/1999 FY98: \$50,000 Total: \$152,800
Prin. Invest.: C R WILSON
Tech. Officer: GSFC/P TAYLOR
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAG 5 3325 UNIVERSITY OF TEXAS – AUSTIN **9156**
ECHO TOMOGRAPHY OF REPROCESSING SITES IN X-RAY BINARIES
 08/07/1996 – 02/14/1998 FY98: \$0 Total: \$5,048
Prin. Invest.: E ROBINSON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 3348 UNIVERSITY OF TEXAS – AUSTIN **9157**
ANALYSIS OF ISO DATA
 08/12/1996 – 08/14/1998 FY98: \$150,000 Total: \$264,800
Prin. Invest.: D L LAMBERT
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3371 UNIVERSITY OF TEXAS – AUSTIN **9158**
MONITORING SEA LEVEL CHANGE AND LAND SUBSIDENCE IN THE CHESA-
PEAKE BAY USING THE GLOBAL POSITIONING
 08/28/1996 – 08/31/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: R S NEREM
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3372 UNIVERSITY OF TEXAS – AUSTIN **9159**
DETECTION OF VERTICAL CRUSTAL MOTION IN ALASKA USING TIDE
GAUGES AND TOPEX/POSEIDON ALTIMETER DATA
 08/28/1996 – 08/31/1997 FY98: \$0 Total: \$10,000
Prin. Invest.: R S NEREM
Tech. Officer: GSFC/J M SAUBER
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3431 UNIVERSITY OF TEXAS – AUSTIN **9160**
PARASEC-SCALE ENVIRONMENT OF LIMINOUS AGN: SPECTROSCOPIC
CLUES TO WINDS, JETS, AND ACCRETION
 10/01/1996 – 09/30/1999 FY98: \$279,000 Total: \$414,606
Prin. Invest.: B J WILLS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3649 UNIVERSITY OF TEXAS – AUSTIN **9161**
OBTAINING RELATIVITY AND OTHER RELEVANT PARAMETERS RANGING
DATA
 03/06/1997 – 02/28/1999 FY98: \$35,700 Total: \$81,576
Prin. Invest.: D J SHELLUS
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 3773 UNIVERSITY OF TEXAS – AUSTIN **9162**
"REMOTELY SENSED SOIL MOISTURE USING FOUR DIMENSIONAL
 02/12/1997 – 09/30/1998 FY98: \$0 Total: \$56,043
Prin. Invest.: J S FAMIGHETTI
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 3786 UNIVERSITY OF TEXAS – AUSTIN **9163**
MCDONALD OBSERVATORY SUPPORT: HARLAN SMITH POST-DOCTORAL
ETARY SCIENCE
 03/19/1997 – 12/31/1998 FY98: \$51,368 Total: \$101,437
Prin. Invest.: D N BASH
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 – ASTRONOMY

NAG 5 3887 UNIVERSITY OF TEXAS – AUSTIN **9164**
CELLULAR BASES OF LIGHT-REGULATED GRAVITY RESPONSE
 03/12/1997 – 01/31/1999 FY98: \$60,533 Total: \$147,387
Prin. Invest.: S J ROUX
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 3930 UNIVERSITY OF TEXAS – AUSTIN **9165**
COMBUSTION IN ASTROPHYSICS
 03/12/1997 – 03/14/1999 FY98: \$15,860 Total: \$31,720
Prin. Invest.: C J WHEELER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 4008 UNIVERSITY OF TEXAS – AUSTIN **9166**
INVESTIGATING RELATIVITY PARAMETERS WITH LUNAR LASERS
 03/12/1997 – 12/31/1997 FY98: \$0 Total: \$39,000
Prin. Invest.: D J SHELUS
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 4059 UNIVERSITY OF TEXAS – AUSTIN **9167**
BLACK HOLE X-RAY NOVA OUTBURST WITH XTE AND HST
 03/24/1997 – 03/14/1998 FY98: \$0 Total: \$5,048
Prin. Invest.: E ROBINSON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 – ASTRONOMY

NAG 5 4125 UNIVERSITY OF TEXAS – AUSTIN **9168**
INVESTIGATING RELATIVITY PARAMETERS WITH LUNAR LASER OBSERVA-
TIONS
 03/13/1997 – 12/31/1998 FY98: \$38,900 Total: \$76,700
Prin. Invest.: D J SHELUS
Tech. Officer: GSFC/H HASAN
CASE Category: 11 – ASTRONOMY

NAG 5 4208 UNIVERSITY OF TEXAS – AUSTIN **9169**
INVESTIGATIONS OF COMETS: HALE-BOPP, THE KUIPER BELT OF OPPORTU-
NITY
 03/14/1997 – 03/14/1999 FY98: \$87,000 Total: \$171,333
Prin. Invest.: D L COCHRAN
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 – ASTRONOMY

NAG 5 4209 UNIVERSITY OF TEXAS - AUSTIN **9170**
MICROMACHINED DIFFRACTION GRATINGS FOR COMPACT IR
 03/14/1997 - 03/14/1999 FY98: \$70,341 Total: \$155,542
Prin. Invest.: D JAFFE
Tech. Officer: GSFC/H THRONSON
CASE Category: 11 - ASTRONOMY

NAG 5 4384 UNIVERSITY OF TEXAS - AUSTIN **9171**
RADIAL VELOCITY DETECTION OF EXTRA-SOLAR PLANETARY
 04/24/1997 - 02/28/1999 FY98: \$113,335 Total: \$283,335
Prin. Invest.: D D COCHRAN
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 4511 UNIVERSITY OF TEXAS - AUSTIN **9172**
IMPROVED OCEAN TIDE MODELS FROM SATELLITE ALTIMETER DATA TO GEODYNAMICS RESEARCH (NRA-96-MTPE-01)
 06/02/1997 - 05/31/1998 FY98: \$0 Total: \$45,000
Prin. Invest.: R J EAMES
Tech. Officer: GSFC/C KOBLINSKY
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4512 UNIVERSITY OF TEXAS - AUSTIN **9173**
IMPROVEMENT OF TOPEX/POSEIDON ALTIMETER DATA FOR G AND COASTAL APPLICATIONS (NRA-96-MTPE-01)
 06/02/1997 - 09/30/1997 FY98: \$83,669 Total: \$9,331
Prin. Invest.: C K SHUM
Tech. Officer: GSFC/C KOBLINSKY
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4513 UNIVERSITY OF TEXAS - AUSTIN **9174**
AN INVESTIGATION OF VERY LOW FREQUENCY SEA LEVEL C POSEIDON ALTIMETER DATA (NRA-96-MTPE-01)
 06/02/1997 - 08/31/1998 FY98: \$0 Total: \$139,000
Prin. Invest.: R S NEREM
Tech. Officer: GSFC/C KOBLINSKY
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4514 UNIVERSITY OF TEXAS - AUSTIN **9175**
DETERMINATION AND INTERPRETATION OF DYNAMIC TOPOGRAPHY POSEIDON (NRA-96-MTPE-01)
 06/02/1997 - 07/31/1998 FY98: \$0 Total: \$75,000
Prin. Invest.: B D TAPLEY
Tech. Officer: GSFC/C KOBLINSKY
CASE Category: 33 - OCEANOGRAPHY

NAG 5 4566 UNIVERSITY OF TEXAS - AUSTIN **9176**
UNIVERSO & HISPANIC HERITAGE MONTH RADIO PROGRAMS CLASSROOM
 06/23/1997 - 08/31/1998 FY98: \$0 Total: \$65,000
Prin. Invest.: S BARNES
Tech. Officer: GSFC/J D ROSEDHAL
CASE Category: 11 - ASTRONOMY

NAG 5 4887 UNIVERSITY OF TEXAS - AUSTIN **9177**
DIRECT SIMULATION OF LOW DENSITY ATMOSPHERE FLOW
 06/20/1997 - 12/31/1998 FY98: \$0 Total: \$54,627
Prin. Invest.: D GOLDSTEIN
Tech. Officer: GSFC/S HOWARD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4934 UNIVERSITY OF TEXAS - AUSTIN **9178**
GROUND BASED STUDIES OF THE OUTER PLANETS
 06/23/1997 - 07/31/1999 FY98: \$0 Total: \$45,000
Prin. Invest.: D TRAFTON
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 5170 UNIVERSITY OF TEXAS - AUSTIN **9179**
DETERMINATION OF TIME-VARYING EARTH GRAVITY FIELD F Y USING GPS AND SLR
 07/17/1997 - 07/14/1999 FY98: \$60,000 Total: \$110,000
Prin. Invest.: M CHENG
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 5171 UNIVERSITY OF TEXAS - AUSTIN **9180**
MEASUREMENT AND INTERPRETATION OF TEMPORAL VARIABILITY FIELD USING GPS AND SLR
 07/17/1997 - 07/14/1999 FY98: \$50,000 Total: \$100,000
Prin. Invest.: R R EM
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 5140 UNIVERSITY OF TEXAS - AUSTIN **9181**
HIGH DISPERSION SPECTROSCOPY OF MARS, PLUTO AND CO
 09/08/1997 - 08/31/1999 FY98: \$21,667 Total: \$151,667
Prin. Invest.: D S BARKER
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 5300 UNIVERSITY OF TEXAS - AUSTIN **9182**
UNIVERSITY OF TEXAS, ENHANCEMENT USING A SPECIAL C
 09/17/1997 - 09/14/1998 FY98: \$0 Total: \$19,911
Prin. Invest.: W T FOWLER
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5309 UNIVERSITY OF TEXAS - AUSTIN **9183**
EARTH SYSTEM DYNAMICS: THE DETERMINATION & INTERPRETATION OF THE GLOBAL ANGULAR MOMENTUM BUDGET USING
 10/10/1997 - 06/30/1999 FY98: \$2,007,000 Total: \$2,007,000
Prin. Invest.: B TAPLEY
Tech. Officer: GSFC/M BALTUCK
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 5346 UNIVERSITY OF TEXAS - AUSTIN **9184**
PRECISION ORBIT DETERMINATION AND CALIBRATION SUPPORT FOR U.S. WORLD OCEAN CIRCULATION EXPERIMENT
 10/17/1997 - 08/31/1999 FY98: \$234,472 Total: \$234,472
Prin. Invest.: B TAPLEY
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 5368 UNIVERSITY OF TEXAS - AUSTIN **9185**
ASTROMETRY AND DYNAMICS OF NEAR-EARTH OBJECTS AND KIRKWOOD GAPS
 09/25/1997 - 09/30/1999 FY98: \$10,575 Total: \$66,575
Prin. Invest.: D S BARKER
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 11 - ASTRONOMY

NAG 5 6393 UNIVERSITY OF TEXAS - AUSTIN **9186**
REMOTE SENSING SOIL MOISTURE USING FOUR DIMENSIONAL DATA ASSIMILATION
 10/21/1997 - 09/30/1998 FY98: \$56,044 Total: \$56,044
Prin. Invest.: J FAMIGLIETTI
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6395 UNIVERSITY OF TEXAS - AUSTIN **9187**
MULTISCALE SOIL MOISTURE VARIABILITY FROM COMBINED REMOTE SENSING, MODELING, AND OBSERVATIONS
 10/21/1997 - 06/30/1999 FY98: \$174,070 Total: \$174,070
Prin. Invest.: J FAMIGLIETTI
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6596 UNIVERSITY OF TEXAS - AUSTIN **9188**
MULTIRESOLUTION INFORMATION ARCHIVAL AND ANALYSIS SYSTEM
 11/24/1997 - 06/30/1998 FY98: \$200,000 Total: \$200,000
Prin. Invest.: D FUSSELL
Tech. Officer: GSFC/R KREIDER
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 6728 UNIVERSITY OF TEXAS - AUSTIN **9189**
GENERAL RELATIVISTIC AND GRAVITATIONAL PHYSICS PARAMETERS FROM LUNAR LASER RANGING DATA
 12/11/1997 - 12/31/1998 FY98: \$35,000 Total: \$35,000
Prin. Invest.: P J SHELUS
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 6754 UNIVERSITY OF TEXAS - AUSTIN **9190**
GROUND BASED STUDIES OF THE OUTER PLANETS
 12/15/1997 - 12/31/1998 FY98: \$82,759 Total: \$82,759
Prin. Invest.: L M TRAFTON
Tech. Officer: GSFC/T MORGAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7002 UNIVERSITY OF TEXAS - AUSTIN **9191**
TIME SERIES ANALYSIS OF THE UV FLICKERING IN AGN
 02/09/1998 - 02/14/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: E ROBINSON
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7203 UNIVERSITY OF TEXAS - AUSTIN **9192**
TRACING THE MASS IN AN EVOLUTIONARY SEQUENCE
 04/23/1998 - 04/14/2001 FY98: \$57,643 Total: \$57,643
Prin. Invest.: N J EVANS, 11
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 5 7363 UNIVERSITY OF TEXAS - AUSTIN **9193**
THE EVOLUTION OF THE INTERGALACTIC MEDIUM AND THE FORMATION OF GALAXIES AND LARGE-SCALE STRUCTURE IN
 04/30/1998 - 05/31/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: P R SHAPIRO
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7582 UNIVERSITY OF TEXAS - AUSTIN **9194**
"MAPPING NEAR-SURFACE SALINIZATION USING LONG-WAVE LENGTH-AIRSAR" (SENH98-0113)
 08/04/1998 - 01/31/1999 FY98: \$21,000 Total: \$21,000
Prin. Invest.: J G PAINE
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7660 UNIVERSITY OF TEXAS - AUSTIN **9195**
'PATTERNS OF SHORELINE CHANGE AND HURRICANE WASHOVER ON BARRIERISLANDS' (SENH98-0094)
 09/09/1998 - 02/28/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: J C GIBEAUT
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7693 UNIVERSITY OF TEXAS - AUSTIN **9196**
FUNDING FOR 'REMOTE SENSING, GIS AND THE ANCIENT TERRITORY: A PROJECT FOR THE CHORA OF CHERSONESOS
 09/17/1998 - 09/30/1999 FY98: \$50,023 Total: \$50,023
Prin. Invest.: J C CARTER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 8 1090 UNIVERSITY OF TEXAS - AUSTIN **9197**
ATOM MEASUREMENT
 09/07/1994 - 03/05/1997 FY98: -\$243 Total: \$99,757
Prin. Invest.: D J HEINZEN
Tech. Officer: MSFC/D A NOEVER
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 745 UNIVERSITY OF TEXAS - AUSTIN **9198**
WIDE AREA NETWORK INSTANTIATION DEPLOYMENT & MANAGEMENT OF AUTONOMOUS KNOWLEDGE ROBOTS
 06/10/1994 - 04/30/1999 FY98: \$0 Total: \$204,989
Prin. Invest.: C C STOUT, C D STOUT
Tech. Officer: JSC/R SAVELY, JSC/R SHELTON
CASE Category: 22 - COMPUTER SCIENCE

NAG 9 804 UNIVERSITY OF TEXAS - AUSTIN **9199**
NEUROMECHANICAL POSTURAL CONTROL SYNERGIES SUPPORTING VOLUNTARY MOVEMENT
 08/17/1995 - 08/31/1997 FY98: -\$89 Total: \$38,574
Prin. Invest.: L D ABRAHAM
Tech. Officer: JSC/J BLOOMBERG
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 805 UNIVERSITY OF TEXAS - AUSTIN **9200**
MUSCULOSKELETAL MODELING OF HUMAN UPPER EXTREMITY PERFORMANCE
 08/16/1995 - 06/12/1997 FY98: \$0 Total: \$59,385
Prin. Invest.: R E BARR, L D ABRAHAM, M G PANDY
Tech. Officer: JSC/K DEMEL
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 9 808 UNIVERSITY OF TEXAS - AUSTIN **9201**
COUPLING OF SPH & FINITE ELEMENT CODES FOR MULTILAYER ORBITAL DEBRIS SHIELD DESIGN
 08/10/1995 - 06/20/1997 FY98: -\$661 Total: \$57,139
Prin. Invest.: E P FAHRETHOLD
Tech. Officer: JSC/E CHRISTIANSEN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 809 UNIVERSITY OF TEXAS - AUSTIN **9202**
ADVANCED DEVELOPMENT ON FAULT TOLERANCE TECH
 08/21/1995 - 08/31/1998 FY98: \$0 Total: \$794,498
Prin. Invest.: D TESAR
Tech. Officer: JSC/J T CHLADEK
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 9 829 UNIVERSITY OF TEXAS - AUSTIN **9203**
SUBSTRUCTURE SYSTEM IDENTIFICATION & MATH UPDATING
 09/22/1995 - 06/30/1999 FY98: \$0 Total: \$60,779
Prin. Invest.: R R CRAIG, JR.
Tech. Officer: JSC/N TENGLER
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 841 UNIVERSITY OF TEXAS - AUSTIN **9204**
DESIGN OF AUTOMATIC CONTROL FOR HUMAN/LOG THERMAL INTERAC-
TION
 09/25/1995 - 10/25/1999 FY98: \$46,107 Total: \$133,607
Prin. Invest.: K R DILLER
Tech. Officer: JSC/C LIN
CASE Category: 46 - MECHANICAL ENGR

NAG 9 890 UNIVERSITY OF TEXAS - AUSTIN **9205**
DEV BOUNDARY ELEMENT PROCEDURE 3-DIM STRESS ANALYSIS
 08/20/1996 - 08/31/1998 FY98: \$0 Total: \$101,394
Prin. Invest.: D E MEAR
Tech. Officer: JSC/R G FORMAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 891 UNIVERSITY OF TEXAS - AUSTIN **9206**
ANALYSIS OF PV POWERED REFRIG SYS FOR AEROSPACE TERRESTRIAL
APPS
 08/19/1996 - 08/18/1998 FY98: \$0 Total: \$47,500
Prin. Invest.: D C VLIET
Tech. Officer: JSC/M EWERT
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 897 UNIVERSITY OF TEXAS - AUSTIN **9207**
CONTINUUM AEROSPACE VEHICLES FLOW STUDY
 08/09/1996 - 08/14/1998 FY98: \$0 Total: \$77,000
Prin. Invest.: D B GOLDSTEIN, D L VARGHESE
Tech. Officer: JSC/F LUMPKIN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 898 UNIVERSITY OF TEXAS - AUSTIN **9208**
SPATIAL REASONING FOR SCALABLE DISTRIBUTED ROBOT VISION
 08/06/1996 - 01/31/1998 FY98: -\$1,209 Total: \$67,791
Prin. Invest.: D KUIPERS
Tech. Officer: JSC/T PENDLETON
CASE Category: 49 - ENGINEERING, OTHER

NAG 9 912 UNIVERSITY OF TEXAS - AUSTIN **9209**
TSGC PROTOTYPE/SHUTTLE PHOTO ESSAY PROJECT
 09/24/1996 - 01/24/1999 FY98: \$0 Total: \$20,000
Prin. Invest.: W T FOWLER
Tech. Officer: JSC/K D LULLA
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 146 UNIVERSITY OF TEXAS - AUSTIN **9210**
PARTICLE HYDRODYNAMICS W/MATERIAL STRENGTH FOR MULTI LAYER
ORBITAL DEBRIS
 06/12/1997 - 06/22/1999 FY98: \$0 Total: \$67,026
Prin. Invest.: E P FAHRENTHOLD
Tech. Officer: JSC/E L CHRISTIANSEN
CASE Category: 46 - MECHANICAL ENGR

NAG 9 931 UNIVERSITY OF TEXAS - AUSTIN **9211**
COMPUTATIONAL APPROACH TO MODELING RAREFIED FLOW
 02/20/1993 - 04/30/1999 FY98: \$32,766 Total: \$32,766
Prin. Invest.: D B GOLDSTEIN, P L VARGHESE
Tech. Officer: JSC/F E LUMPKIN, JSC/G J LEBEAU
CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 914 UNIVERSITY OF TEXAS - AUSTIN **9212**
1998 NASA REDUCED GRAVITY STUDENT FLIGHT OPS
 02/23/1998 - 09/30/1999 FY98: \$33,889 Total: \$33,889
Prin. Invest.: B D TAPLEY, B O FORT
Tech. Officer: JSC/D G SICKOREZ, JSC/N G ROBERTSON
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 9 916 UNIVERSITY OF TEXAS - AUSTIN **9213**
FLY HIGH- HIGH SCHOOL KC 135 STUDENT FLIGHT PROGRAM
 03/02/1996 - 07/31/1999 FY98: \$45,438 Total: \$45,438
Prin. Invest.: W T FOWLER, B E FORT
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 41 - AERONAUTICAL ENGR

NAGW 1477 UNIVERSITY OF TEXAS - AUSTIN **9214**
A CONTINUED PROGRAM OF PLANETARY STUDY AT THE UNIV
 12/12/1988 - 06/30/1998 FY98: \$0 Total: \$2,344,737
Prin. Invest.: H J SMITH
Tech. Officer: HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NAGW 2112 UNIVERSITY OF TEXAS - AUSTIN **9215**
PRECISION ORBIT DETERMINATION AND CALIBRATION SUPPORT FOR
U.S. WORLD OCEAN CIRCULATION EXPERIMENT
 09/07/1990 - 11/30/1997 FY98: \$0 Total: \$1,114,750
Prin. Invest.: B TAPLEY
Tech. Officer: HQ/B DOUGLAS, HQ/R C HARRISS
CASE Category: 33 - OCEANOGRAPHY

NAGW 2314 UNIVERSITY OF TEXAS - AUSTIN **9216**
GROUND BASED STUDIES OF THE OUTER PLANETS
 06/13/1991 - 07/31/1998 FY98: \$0 Total: \$458,400
Prin. Invest.: L M TRAFTON
Tech. Officer: HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NAGW 2611 UNIVERSITY OF TEXAS - AUSTIN **9217**
EARTH SYSTEM DYNAMICS; THE DETERMINATION AND INTERPRETATION
OF THE GLOBAL ANGULAR MOMENTUM BUDGET
 07/24/1991 - 12/31/1998 FY98: \$0 Total: \$5,458,000
Prin. Invest.: B TAPLEY
Tech. Officer: HQ/A J ANDERSON, HQ/W S WILSON
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3111 UNIVERSITY OF TEXAS – AUSTIN **9218**
ASTROMETRIC SUPPORT FOR THE REDUCTION OF HIPPARCOS COORDINATE SYSTEM DATA
 06/23/1992 – 06/30/1997 FY98: -\$1,237 Total: \$228,243
Prin. Invest.: R DUNCOMBE
Tech. Officer: HQ/R V STACHNIK, HQ/R V STACHNIK
CASE Category: 11 – ASTRONOMY

NAGW 3990 UNIVERSITY OF TEXAS – AUSTIN **9219**
RADIAL VELOCITY DETECTION OF EXTRA SOLAR PLANETARY SYSTEMS
 05/13/1994 – 02/28/1998 FY98: \$0 Total: \$417,604
Prin. Invest.: W COCHRAN
Tech. Officer: HQ/J H RAHE
CASE Category: 11 – ASTRONOMY

NAGW 4012 UNIVERSITY OF TEXAS – AUSTIN **9220**
CCD ASTROMETRY OF FAINT SOLAR SYSTEM OBJECTS
 05/23/1994 – 02/28/1997 FY98: -\$1,389 Total: \$32,626
Prin. Invest.: A WHIPPLE
Tech. Officer: HQ/J H RAHE
CASE Category: 11 – ASTRONOMY

NAGW 4027 UNIVERSITY OF TEXAS – AUSTIN **9221**
DIFFRACTION GRATING FOR COMPACT IR SPECTROMETERS IN SPACE
 05/24/1994 – 09/30/1997 FY98: \$0 Total: \$81,899
Prin. Invest.: D JAFFE
Tech. Officer: HQ/L J CAROFF
CASE Category: 11 – ASTRONOMY

NAGW 4087 UNIVERSITY OF TEXAS – AUSTIN **9222**
REMOTE SENSING SOIL MOISTURE USING FOUR DIMENSIONAL DATA ASSIMILATION
 07/26/1994 – 06/30/1997 FY98: \$0 Total: \$109,896
Prin. Invest.: J S FAMIGLIETTI
Tech. Officer: HQ/M Y WEI, HQ/J S THEON
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 4247 UNIVERSITY OF TEXAS – AUSTIN **9223**
MULTIRESOLUTION INFORMATION ARCHIVAL AND ANALYSIS SYSTEM
 02/10/1995 – 08/31/1998 FY98: \$0 Total: \$520,833
Prin. Invest.: D FUSSELL
Tech. Officer: HQ/R S MCGINNIS
CASE Category: 22 – COMPUTER SCIENCE

NAGW 4696 UNIVERSITY OF TEXAS – AUSTIN **9224**
HUMAN DIMENSIONS OF DEFORESTATION & REGROWTH IN THE BRAZILIAN AMAZON: INTEGRATING DATA FROM SATELLITE
 08/10/1995 – 08/31/1997 FY98: \$0 Total: \$116,195
Prin. Invest.: C WOOD, T PULLUM, S SANDERSON
Tech. Officer: HQ/N MAYNARD, HQ/R C HARRISS
CASE Category: 79 – SOCIAL SCIENCE, OTHER

NAGW 4727 UNIVERSITY OF TEXAS – AUSTIN **9225**
SPACE DISTRIBUTION OF A AND F STARS IN THE SOLAR NEIGHBORHOOD
 08/28/1995 – 08/31/1997 FY98: \$0 Total: \$34,135
Prin. Invest.: R DUNCOMBE
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 – ASTRONOMY

NAGW 4813 UNIVERSITY OF TEXAS – AUSTIN **9226**
REDUCTION AND ANALYSIS OF HIPPARCOS DATA
 09/28/1995 – 08/31/1997 FY98: \$0 Total: \$34,135
Prin. Invest.: R L DUNCOMBE
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 – ASTRONOMY

NAGW 4862 UNIVERSITY OF TEXAS – AUSTIN **9227**
INVESTIGATING RELATIVITY PARAMETERS WITH LUNAR LASER RANGING DATA: OBSERVATIONS
 11/09/1995 – 12/31/1998 FY98: \$0 Total: \$36,690
Prin. Invest.: P J SHERUS
Tech. Officer: HQ/L TATT, HQ/D W WEEDMAN
CASE Category: 13 – PHYSICS

NAGW 5187 UNIVERSITY OF TEXAS – AUSTIN **9228**
MONITORING OF COMET HALE-BOPP AND MARTIAN WATER VAPOUR IN 1996 1997
 09/04/1996 – 08/31/1998 FY98: \$0 Total: \$130,000
Prin. Invest.: E BAKER
Tech. Officer: HQ/J BERGSTRAHL, HQ/H C BRINTON
CASE Category: 11 – ASTRONOMY

NAGW 5190 UNIVERSITY OF TEXAS – AUSTIN **9229**
VERIFICATION AND IMPROVEMENT OF EPS-1/2 GEOPHYSICAL DATA RECORDS FOR GLOBAL CHANGE STUDIES
 09/19/1996 – 06/30/1997 FY98: \$0 Total: \$60,000
Prin. Invest.: C K SHUM
Tech. Officer: HQ/B C DOUGLAS, HQ/R C HARRISS
CASE Category: 33 – OCEANOGRAPHY

NAGW 5230 UNIVERSITY OF TEXAS – AUSTIN **9230**
RESEARCH (DIRECT)
 10/09/1996 – 06/30/1997 FY98: \$0 Total: \$42,529
Prin. Invest.: D GOLDSTEIN
Tech. Officer: HQ/J BERGSTRAHL, HQ/H C BRINTON
CASE Category: 32 – GEOLOGICAL SCIENCE

NAGW 5237 UNIVERSITY OF TEXAS – AUSTIN **9231**
A NUMERICAL STUDY OF THE BERKNER SHELF POLYNOMIAL
 01/08/1997 – 09/30/1997 FY98: \$0 Total: \$80,000
Prin. Invest.: D C SMITH, IV
Tech. Officer: HQ/B C DOUGLAS, HQ/R C HARRISS
CASE Category: 33 – OCEANOGRAPHY

NAGW 5240 UNIVERSITY OF TEXAS – AUSTIN **9232**
MULTISCALE SOIL MOISTURE VARIABILITY FROM COMBINED REMOTE SENSING MODELING AND OBSERVATIONS
 04/22/1998 – 12/31/1998 FY98: \$0 Total: \$166,745
Prin. Invest.: J FAMIGLIETTI
Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAGW 202 UNIVERSITY OF TEXAS – AUSTIN **9233**
EARLY DEVELOPMENT OF FERN GAMETOPHYTES IN MICROSCAVITY
 10/16/1996 – 09/30/1998 FY98: \$0 Total: \$185,125
Prin. Invest.: S J POUX
Tech. Officer: KSC/W M KNOTT
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAS 5 32997 UNIVERSITY OF TEXAS - AUSTIN **9234**
OPERATION, MAINTENANCE AND ENGINEERING DEVELOPMENT OF THE
UNIV OF TX LASER RANGING STATION
 04/17/1996 - 02/28/1999 FY98: \$485,000 Total: \$1,265,346
Prin. Invest.: P J SHELUS
Tech. Officer: GSFC/J MCGARRY
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 5 33021 UNIVERSITY OF TEXAS - AUSTIN **9235**
EOS INTERDISCIPLINARY STUDY FOR THE GEODYNAMICS LASER
 12/12/1989 - 10/31/1998 FY98: \$550,000 Total: \$2,590,200
Prin. Invest.: B SCHUTZ
Tech. Officer: GSFC/G SOFFE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 97213 UNIVERSITY OF TEXAS - AUSTIN **9236**
GRAVITY RECOVERY AND CLIMATE EXPERIMENT (GRACE)
 08/12/1997 - 02/12/1999 FY98: \$924,013 Total: \$1,224,013
Prin. Invest.: B TAPLEY
Tech. Officer: GSFC/R FITZGERALD
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 9 97045 UNIVERSITY OF TEXAS - AUSTIN **9237**
MARS PRECISION LANDING TASK
 03/03/1997 - 03/27/1999 FY98: \$165,853 Total: \$319,191
Prin. Invest.: B D TAPLEY, R H BISHOP
Tech. Officer: JSC/R CARPENTER
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 303 UNIVERSITY OF TEXAS - AUSTIN **9238**
DURABILITY OF SANDWICH STRUCTURES
 06/04/1998 - 04/30/1999 FY98: \$49,000 Total: \$49,000
Prin. Invest.: K LIECHTI, S KYRIAKIDES
Tech. Officer: LARC/T S GRITES
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 787 UNIVERSITY OF TEXAS - AUSTIN **9239**
DEVELOPMENT AND IMPLEMENTATION OF NASA TECHNOLOGY COM-
MERCIALIZATION FIELD CENTERS (NTCC)
 04/21/1993 - 10/31/1996 FY98: -\$77,091 Total: \$2,633,869
Prin. Invest.: G KOZMETSKY
Tech. Officer: ARC/C S HAYWARD, ARC/D H BROCKER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 2 5174 UNIVERSITY OF TEXAS - AUSTIN **9240**
COMPARISON OF ALTERNATE DESIGNS FOR CIVIL TILTROTOR AIRCRAFT
 03/25/1996 - 11/30/1996 FY98: -\$2,814 Total: \$9,186
Prin. Invest.: D MARK
Tech. Officer: ARC/M J AQUILERA
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 5276 UNIVERSITY OF TEXAS - AUSTIN **9241**
DATA INTENSIVE VISUALIZATION
 07/13/1998 - 06/30/1999 FY98: \$56,664 Total: \$56,664
Prin. Invest.: C BAJAJ
Tech. Officer: ARC/M GERALD-YAMASAKI, ARC/A VAZIRI
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 154 UNIVERSITY OF TEXAS - AUSTIN **9242**
GRAND CHALLENGE RESEARCH
 08/21/1996 - 08/01/1999 FY98: \$300,000 Total: \$850,000
Prin. Invest.: G CAREY
Tech. Officer: GSFC/J R FISCHER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NCC 9 73 UNIVERSITY OF TEXAS - AUSTIN **9243**
SIMULATION OF HYPERVELOCITY IMPACT ON AL-NEXTEL KEVLOR
ORBITAL DEBRIS SHIELDS
 08/10/1998 - 06/30/1999 FY98: \$21,836 Total: \$21,836
Prin. Invest.: E P FARENTHOLD
Tech. Officer: JSC/E L CHRISTIANSEN
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NGT 10194 UNIVERSITY OF TEXAS - AUSTIN **9244**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/26/1993 - 08/31/1997 FY98: -\$1,280 Total: \$64,720
Prin. Invest.: K W BUTZER
Tech. Officer: HQ/G ASRAR, HQ/D M BUTLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 10003 UNIVERSITY OF TEXAS - AUSTIN **9245**
NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM
 10/10/1989 - 09/30/1997 FY98: -\$3,681 Total: \$3,147,389
Prin. Invest.: B D TAPLEY
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51332 UNIVERSITY OF TEXAS - AUSTIN **9246**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/27/1994 - 12/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: R MOONEY
Tech. Officer: HQ/D HOLLAND
CASE Category: 22 - COMPUTER SCIENCE

NGT 51365 UNIVERSITY OF TEXAS - AUSTIN **9247**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/16/1994 - 06/30/1997 FY98: -\$19 Total: \$65,981
Prin. Invest.: B G SANDERS
Tech. Officer: HQ/G LESANE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 52147 UNIVERSITY OF TEXAS - AUSTIN **9248**
GRADUATE STUDENT RESEARCH PROGRAM (GSRP)
 07/26/1996 - 08/31/1999 FY98: \$22,001 Total: \$66,001
Prin. Invest.: D GARZA
Tech. Officer: LARC/R D BRAUM
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 33 UNIVERSITY OF TEXAS - AUSTIN **9249**
DEVELOPMENT OF A PARALLEL ALGORITHM FOR LAND SURFACE
HYDROLOGY AND RIVER TRANSPORT IN COUPLED
 07/25/1996 - 08/31/1999 FY98: \$0 Total: \$44,000
Prin. Invest.: J FAMIGLIETTI
Tech. Officer: GSFC/G A SOFFEN, GSFC/M SUAREZ
CASE Category: 22 - COMPUTER SCIENCE

NASA'S UNIVERSITY PROGRAM

TEXAS

NGT 5 72 UNIVERSITY OF TEXAS - AUSTIN **9250**
GSRP TRAINING GRANT - PAUL THOMPSON - MASS DISTRIBUTION IN
THE EARTH'S SYSTEMS: SPACE GEODETIC MEASUREMENTS
06/04/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R NEREM
Tech. Officer: GSFC/M S BURRELL
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 30008 UNIVERSITY OF TEXAS - AUSTIN **9251**
A CONTINENTAL RIVER FLOWING ALGORITHM FOR GLOBAL WATER COUPLED
EARTH SYSTEM MODELS
10/14/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: J FAMIGLIETTI
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30162 UNIVERSITY OF TEXAS - AUSTIN **9252**
ESTIMATING CHANGES IN CONTINENTAL WATER STORAGE FROM SAT-
ELLITE OBSERVATIONS OF TIME DEPENDENT
08/31/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J S FAMIGLIETTI, ROD
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 40005 UNIVERSITY OF TEXAS - AUSTIN **9253**
UNIVERSO AND HISPANIC HERITAGE MONTH ASTRONOMY RAD
11/16/1998 - 08/31/1997 FY98: \$0 Total: \$32,500
Prin. Invest.: B D TAPLEY
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40016 UNIVERSITY OF TEXAS - AUSTIN **9254**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM TRAIN-
ING WORKSHOP
12/11/1996 - 01/31/1997 FY98: \$0 Total: \$19,586
Prin. Invest.: B D TAPLEY
Tech. Officer: GSFC/L OSTENDORF
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40053 UNIVERSITY OF TEXAS - AUSTIN **9255**
TEXAS SPACE GRANT CONSORTIUM & GLOBE TEACHER TRAINING
02/12/1997 - 01/31/2001 FY98: \$547,978 Total: \$1,050,881
Prin. Invest.: B D TAPLEY
Tech. Officer: GSFC/L OSTENDORF
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50004 UNIVERSITY OF TEXAS - AUSTIN **9256**
THE VARIABILITY OF OCEANIC ANGULAR MOMENTUM AND THERMAL
BUDGET: A GEODETIC APPROACH TO GLOBAL CLIMATE
11/16/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: C WILSON
Tech. Officer: GSFC/A NURRIDDIN
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 5 50099 UNIVERSITY OF TEXAS - AUSTIN **9257**
DIFFERENTIAL GENE EXPRESSION IN GERMINATING SPORES
08/29/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: ROUX
Tech. Officer: HQ/A NURRIDDIN
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 90017 UNIVERSITY OF TEXAS - AUSTIN **9258**
UNIVERSITY STUDENT AWARDS FOR RESEARCH (USAR)
01/02/1997 - 08/31/1997 FY98: \$0 Total: \$12,000
Prin. Invest.: R H BISHOP
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NGT 9 29 UNIVERSITY OF TEXAS - AUSTIN **9259**
ADVANCEMENT OF PRECISION LANDING, GUIDANCE, & NAVIGATION CON-
TROL TECHNIQUES FOR MARS LANDING
09/24/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: W E HUTCHISON, R H BISHOP Prin. Invest.: NONE
Tech. Officer: JSC/D G SICKCOREZ
CASE Category: 42 - ASTRONAUTICAL ENGR

NGT 9 35 UNIVERSITY OF TEXAS - AUSTIN **9260**
TRAINING GRANT
06/04/1998 - 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R H BISHOP
Tech. Officer: JSC/D G SICKCOREZ
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1246 UNIVERSITY OF TEXAS - DALLAS **9261**
REPRESENTATIONS & INVERSION OF NONLINEAR SYSTEMS
08/05/1998 - 09/30/1998 FY98: \$11,000 Total: \$11,000
Prin. Invest.: L R HUNT
Tech. Officer: ARC/G MEYER
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 3598 UNIVERSITY OF TEXAS - DALLAS **9262**
TIDAL STUDIES IN THE MESOSPHERE
01/29/1997 - 08/31/1998 FY98: \$0 Total: \$56,933
Prin. Invest.: C TESEN
Tech. Officer: GSFC/C JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3740 UNIVERSITY OF TEXAS - DALLAS **9263**
MULTIPLE TETHERED SATELLITES FOR IONOSPHERIC STUDIES
03/06/1997 - 12/31/1998 FY98: \$0 Total: \$72,903
Prin. Invest.: D A HEELIS
Tech. Officer: GSFC/R HOWARD
CASE Category: 13 - PHYSICS

NAG 5 4187 UNIVERSITY OF TEXAS - DALLAS **9264**
DEVELOPMENT AND DEMONSTRATION OF A ROBUST MICRO-ELECTRO-
Mechanical TRANSDUCER FOR LOW ALTITUDE SATELLITE AN-
04/01/1997 - 04/30/1999 FY98: \$35,335 Total: \$102,042
Prin. Invest.: D D EARLE
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4371 UNIVERSITY OF TEXAS - DALLAS **9265**
PROPOSAL FOR CONTINUATION OF MARS 96 CO-INVESTIGATED EXPERI-
MENT: FY 1996-1998
04/14/1997 - 01/31/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: D HODGES, JR.
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 - ASTRONOMY

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| NAG 5 4374 UNIVERSITY OF TEXAS - DALLAS 9266 INTERDISCIPLINARY STUDY OF PLANETARY ATMOSPHERES 04/25/1997 - 12/31/1998 FY98: \$30,000 Total: \$60,000 <i>Prin. Invest.:</i> D R HODGES, JR. <i>Tech. Officer:</i> GSFC/D BOGAN CASE Category: 31 - ATMOSPHERIC SCIENCE | NAG 9 815 UNIVERSITY OF TEXAS - DALLAS 9274 DEVELOPMENT AND TESTS OF INSTRUMENTATION INTENDED FOR REMOTE REGOLITH STUDIES 07/12/1996 - 06/30/1997 FY98: \$0 Total: \$52,500 <i>Prin. Invest.:</i> D H HOFFMAN, D D HAMMACK <i>Tech. Officer:</i> JSC/D MCKAY CASE Category: 32 - GEOLOGICAL SCIENCE |
| NAG 5 4465 UNIVERSITY OF TEXAS - DALLAS 9267 THE SPATIAL DISTRIBUTION OF IONOSPHERIC PLASMA AND HIGH LATITUDES 05/27/1997 - 04/30/1999 FY98: \$39,175 Total: \$99,518 <i>Prin. Invest.:</i> D A HEELIS <i>Tech. Officer:</i> GSFC/M M MELLOTT CASE Category: 13 - PHYSICS | NAGW 4432 UNIVERSITY OF TEXAS - DALLAS 9275 THE SPATIAL DISTRIBUTION OF IONOSPHERIC PLASMA AND FIELD STRUCTURE OF HIGH LATITUDES 05/16/1995 - 10/30/1998 FY98: \$0 Total: \$137,140 <i>Prin. Invest.:</i> R A HEELIS <i>Tech. Officer:</i> HQ/J D BOHLIN CASE Category: 13 - PHYSICS |
| NAG 5 4644 UNIVERSITY OF TEXAS - DALLAS 9268 MICRO-TIP ARRAY MASS SPECTROMETER ION SOURCE 05/30/1997 - 05/31/1999 FY98: \$0 Total: \$71,100 <i>Prin. Invest.:</i> D H HOFFMAN <i>Tech. Officer:</i> GSFC/B CAMPBELL CASE Category: 99 - MULTI INTERDISCIPL, OTHER | NAGW 5104 UNIVERSITY OF TEXAS - DALLAS 9276 MICRO TIP ARRAY MASS SPECTROMETER ION 06/11/1996 - 09/30/1997 FY98: \$0 Total: \$127,388 <i>Prin. Invest.:</i> J H HOFFMAN <i>Tech. Officer:</i> HQ/T KOSTIUK, HQ/H C BRINTON CASE Category: 11 - ASTRONOMY |
| NAG 5 4725 UNIVERSITY OF TEXAS - DALLAS 9269 ADAPTIVE IDENTIFICATION AND CHARACTERIZATION OF PO 06/18/1997 - 04/30/1998 FY98: \$0 Total: \$62,875 <i>Prin. Invest.:</i> R COLEY <i>Tech. Officer:</i> GSFC/M M MELLOTT CASE Category: 13 - PHYSICS | NGT 51665 UNIVERSITY OF TEXAS - DALLAS 9277 GRADUATE STUDENT RESEARCHERS PROGRAM 07/08/1996 - 09/30/1997 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> L TAMIL <i>Tech. Officer:</i> HQ/D HOLLAND CASE Category: 45 - ELECTRICAL ENGR |
| NAG 5 5076 UNIVERSITY OF TEXAS - DALLAS 9270 PROPOSAL TO COMPLETE SOUNDING ROCKET PROJECT 21.11.4 05/09/1996 - 04/30/1999 FY98: \$0 Total: \$203,452 <i>Prin. Invest.:</i> G D EARLE <i>Tech. Officer:</i> GSFC/L W GURKIN CASE Category: 13 - PHYSICS | NGT 5 23 UNIVERSITY OF TEXAS - DALLAS 9278 THE RELATIONSHIPS BETWEEN SPATIAL STRUCTURE IN THE MAGNETIC FIELD PERTURBATIONS AND THE ELECTRIC... 07/15/1996 - 07/14/1997 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> R A HELLIS <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> CSFC/G A SOFFEN, GSFC/R PFAFF CASE Category: 13 - PHYSICS |
| NAG 5 5086 UNIVERSITY OF TEXAS - DALLAS 9271 ROCKET/RADAR INVESTIGATION OF LOWER IONOSPHERIC ELECTRODYNAMICS ASSOCIATED WITH INTENSE MID-LATITUDE 06/28/1996 - 05/31/1999 FY98: \$15,000 Total: \$188,992 <i>Prin. Invest.:</i> R A HEELIS <i>Tech. Officer:</i> GSFC/L W GURKIN CASE Category: 13 - PHYSICS | NGT 5 50058 UNIVERSITY OF TEXAS - DALLAS 9279 THEORY, MODELING, NUMERICAL SIMULATION, AND EXPERIMENTAL FIBER NON-LINEARITIES IN TIME-ALIGNED WDM 08/26/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> L TAMMIL/RUIZ <i>Tech. Officer:</i> GSFC/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAG 5 6534 UNIVERSITY OF TEXAS - DALLAS 9272 EXPANSION OF REMOTE SENSING FACILITIES IN THE GEOSCIENCES DEPARTMENT AT THE UNIVERSITY OF TEXAS AT 10/23/1997 - 09/30/1999 FY98: \$128,308 Total: \$128,308 <i>Prin. Invest.:</i> R STERN <i>Tech. Officer:</i> GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 2 1012 UNIVERSITY OF TEXAS - EL PASO 9280 MONITORING SOFTWARE THROUGH INTEGRITY CONSTRAINTS 09/21/1995 - 08/31/1999 FY98: \$0 Total: \$180,487 <i>Prin. Invest.:</i> A Q GATES <i>Tech. Officer:</i> ARC/M R LOWRY, ARC/G S LEE CASE Category: 22 - COMPUTER SCIENCE |
| NAG 5 7309 UNIVERSITY OF TEXAS - DALLAS 9273 LATITUDE, LONGITUDE, AND SOLAR CYCLE VARIATION OF LOW-LATITUDE F-REGION ION DRIFTS 04/22/1998 - 04/30/1999 FY98: \$16,000 Total: \$16,000 <i>Prin. Invest.:</i> D R COLEY <i>Tech. Officer:</i> GSFC/M MELLOTT CASE Category: 11 - ASTRONOMY | NAG 2 1138 UNIVERSITY OF TEXAS - EL PASO 9281 VERIFICATION OF NASA MISSION-CRITICAL SOFTWARE WITHOUT SACRIFICING PERFORMANCE 07/14/1997 - 10/31/1998 FY98: \$29,571 Total: \$140,887 <i>Prin. Invest.:</i> P J TELLER <i>Tech. Officer:</i> ARC/LOWRY CASE Category: 45 - ELECTRICAL ENGR |

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| NAG 3 1820 UNIVERSITY OF TEXAS – EL PASO 9282 NOVEL CDS-CTDE SOLAR CELL STRUCTURES ON FLEXIBLE METAL FOIL SUBSTRATES 04/16/1996 – 04/15/1999 FY98: \$134,329 Total: \$264,240 Prin. Invest.: V P SINGH, J C MCCLURE, G B LUSH Tech. Officer: LERC/E B CLARK CASE Category: 47 – METAL & MATERIALS ENGR | NAG 9 755 UNIVERSITY OF TEXAS – EL PASO 9290 NASA PHYSICS CENTER 07/27/1994 – 09/01/1997 FY98: –\$8,640 Total: \$76,181 Prin. Invest.: J A LOPEZ Tech. Officer: JSC/A POTTER CASE Category: 13 – PHYSICS |
| NAG 4 150 UNIVERSITY OF TEXAS – EL PASO 9283 (FAR) AN IMAGING FRAMEWORK FOR AERODYNAMIC, FLUID MECHANIC, AND HEAT TRANSFER SCIENTIFIC-GRADE 03/03/1998 – 02/27/2001 FY98: \$100,000 Total: \$100,000 Prin. Invest.: R WICKER Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA CASE Category: 99 – MULTI INTERDISCIPL, OTHER | NAG 9 881 UNIVERSITY OF TEXAS – EL PASO 9291 DEVELOPMENT OF ANALYTICAL TOOLS 08/31/1996 – 12/31/1997 FY98: –\$13,566 Total: \$40,282 Prin. Invest.: D FERREGUT Tech. Officer: HQ/R ROCHA CASE Category: 22 – COMPUTER SCIENCE |
| NAG 5 4155 UNIVERSITY OF TEXAS – EL PASO 9284 PACE/MSET AWARD "EXCELLENCE IN TECHNOLOGY, ENGINEER (EXCITES) 03/24/1997 – 10/31/1998 FY98: \$98,661 Total: \$144,558 Prin. Invest.: J HERRERA Tech. Officer: GSFC/M STOUTSENBERGER CASE Category: 99 – MULTI INTERDISCIPL, OTHER | NAG 9 920 UNIVERSITY OF TEXAS – EL PASO 9292 BASIC STUDIES OF CDTE SOLAR CELLS 12/18/1996 – 12/30/1999 FY98: \$100,551 Total: \$199,532 Prin. Invest.: G LUSH Tech. Officer: JSC/F BEIGMONTE CASE Category: 45 – ELECTRICAL ENGR |
| NAG 5 6163 UNIVERSITY OF TEXAS – EL PASO 9285 INTRODUCTORY TRAINING FOR PRE-SERVICE TEACHERS IN 08/01/1997 – 07/31/1999 FY98: \$20,000 Total: \$40,000 Prin. Invest.: V HARDER Tech. Officer: GSFC/N KHAZENIE CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NAGW 4536 UNIVERSITY OF TEXAS – EL PASO 9293 EXCITES 05/24/1995 – 09/30/1997 FY98: \$0 Total: \$100,000 Prin. Invest.: J HERRERA Tech. Officer: HQ/M MATEU CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NAG 5 6795 UNIVERSITY OF TEXAS – EL PASO 9286 TILT THE BALANCE: CLIMATE VARIABILITY AND WATER RESOURCE MANAGEMENT IN THE SOUTHWEST 02/19/1998 – 01/31/1999 FY98: \$75,447 Total: \$75,447 Prin. Invest.: C GROAT Tech. Officer: GSFC/N ANNE CASE Category: 39 – ENVIRONMENTAL SCI, OTHER | NAG10 225 UNIVERSITY OF TEXAS – EL PASO 9294 CONTINUOUS HAZARD TRACKING & FAILURE ANALYSIS METHODOLOGY 09/17/1997 – 09/16/1998 FY98: \$0 Total: \$99,783 Prin. Invest.: R QUINTANA Tech. Officer: KSC/B DELIWALA CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NAG 8 1056 UNIVERSITY OF TEXAS – EL PASO 9287 A STUDY OF THE GAS PURITY SENSITIVITY OF VARIABLE POLARITY PLASMA ARC WELDED ALUMINUM LITHIUM ALLOYS 05/03/1994 – 12/31/1996 FY98: –\$1,372 Total: \$100,554 Prin. Invest.: J C MCCLURE Tech. Officer: MSFC/A C NUNES, MSFC/C RUSSELL CASE Category: 47 – METAL & MATERIALS ENGR | NCC 5 97 UNIVERSITY OF TEXAS – EL PASO 9295 THE UNIVERSITY OF TEXAS AT EL PASO NETWORK RESOURCES AND TRAINING SITES 08/15/1995 – 08/14/1999 FY98: \$0 Total: \$1,549,999 Prin. Invest.: M KOLITSKY Tech. Officer: GSFC/J BENNETT CASE Category: 22 – COMPUTER SCIENCE |
| NAG 8 1393 UNIVERSITY OF TEXAS – EL PASO 9288 R/S "PLASTIC OPTICAL FIBERS FOR ELECTRO-OPTIC ALL-OPTIC AND OPTICAL SENSING APPLICATIONS" 08/18/1997 – 08/17/1998 FY98: \$0 Total: \$99,999 Prin. Invest.: C DIRK Tech. Officer: MSFC/B PENN CASE Category: 13 – PHYSICS | NCC 5 207 UNIVERSITY OF TEXAS – EL PASO 9296 DISTANCE LEARNING STRATEGIES PROMOTING MINORITY AND RESOURCES 06/11/1997 – 05/31/1999 FY98: \$100,000 Total: \$298,748 Prin. Invest.: M A KOLITSKY Tech. Officer: GSFC/R D EASON CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NAG 9 481 UNIVERSITY OF TEXAS – EL PASO 9289 CHARACTERIZATION OF MATERIALS INTERACTION AND DEGRADATION IN SPACE 09/01/1990 – 12/01/1997 FY98: –\$6,525 Total: \$228,080 Prin. Invest.: L E MURR Tech. Officer: JSC/S L KOONTZ, JSC/K E HENDERSON CASE Category: 47 – METAL & MATERIALS ENGR | NCC 5 209 UNIVERSITY OF TEXAS – EL PASO 9297 PAN AMERICAN CENTER FOR EARTH AND ENVIRONMENTAL STUDIES 07/24/1997 – 06/30/1999 FY98: \$820,000 Total: \$1,795,152 Prin. Invest.: S STARKS Tech. Officer: GSFC/J MALONE CASE Category: 99 – MULTI INTERDISCIPL, OTHER |

NCC 8 137 UNIVERSITY OF TEXAS - EL PASO **9298**
R/S "ANALYSIS OF FRICTION STIR WELDING"
 05/27/1997 - 05/26/1999 FY98: \$199,541 Total: \$398,533
Prin. Invest.: J MCCLURE
Tech. Officer: MSFC/J DING
CASE Category: 47 - METAL & MATERIALS ENGR

NCCW 89 UNIVERSITY OF TEXAS - EL PASO **9299**
PAN AMERICAN CENTER FOR EARTH AND ENVIRONMENTAL STUDIES
 08/10/1995 - 06/30/2000 FY98: \$0 Total: \$2,900,346
Prin. Invest.: S A STARKS
Tech. Officer: HQ/M MATEU
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 70350 UNIVERSITY OF TEXAS - EL PASO **9300**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/04/1993 - 08/31/1997 FY98: -\$6 Total: \$80,994
Prin. Invest.: K MARSAGLIA
Tech. Officer: HQ/D K RUSSELL
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 70406 UNIVERSITY OF TEXAS - EL PASO **9301**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 12/05/1994 - 12/31/1996 FY98: -\$9,919 Total: \$34,081
Prin. Invest.: R ARROWOOD
Tech. Officer: HQ/D K RUSSELL
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 5 70007 UNIVERSITY OF TEXAS - EL PASO **9302**
GRADUATE STUDENTS RESEARCH PROGRAM - STUDENTS: DI
 09/06/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: R ARROWOOD
Tech. Officer: GSFC/STOUTSENBERGER
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 2210 UNIVERSITY OF TEXAS AT BROWNSVILLE **9303**
EXPLOITING STRUCTURE: INTRODUCTION AND MOTIVATION
 02/18/1993 - 03/31/1999 FY98: \$0 Total: \$104,091
Prin. Invest.: Z L XU
Tech. Officer: GSFC/G E MOSIER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 776 UNIVERSITY OF TEXAS AT BROWNSVILLE **9304**
HISPANIC MOTHER DAUGHTER PROGRAM
 03/24/1995 - 08/31/1998 FY98: \$0 Total: \$265,074
Prin. Invest.: M MANCILLAS
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 801 UNIVERSITY OF TEXAS AT BROWNSVILLE **9305**
PREPARING TEACHERS TO TEACH SCI STUDENTS INCLUSIVE SETTINGS
 07/28/1995 - 08/14/1999 FY98: \$30,000 Total: \$180,000
Prin. Invest.: R RAMIREZ, JR., K I NORMAN
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 1014 UNIVERSITY OF TEXAS AT BROWNSVILLE **9306**
PRE MATR, SCIENCE, ENGINEERING & TECH SPT PROGRAM
 09/18/1995 - 08/31/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: O RIVAS
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 2010 UNIVERSITY OF TEXAS AT SAN ANTONIO **9307**
RESEARCH & EDUCATION IN PROBABLISTIC STRUCTURAL ANALYSIS & RELIABILITY
 07/10/1997 - 07/19/1999 FY98: \$200,000 Total: \$400,000
Prin. Invest.: L BOYCE
Tech. Officer: LERC/C C CHAMIS, LERC/S S PAI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 9 77: UNIVERSITY OF TEXAS AT SAN ANTONIO **9308**
FUNDAMENTAL SKILLS INTELLIGENT TUTORING SYSTEMS PROJECT
 01/27/1995 - 08/31/1998 FY98: \$0 Total: \$225,000
Prin. Invest.: R DIEM, D S KATIMS
Tech. Officer: JSC/J A ATKINSON
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 9 950 UNIVERSITY OF TEXAS AT SAN ANTONIO **9309**
TEXAS PRE FRESHMAN ENGINEERING PROGRAM
 07/16/1997 - 05/26/1999 FY98: \$198,390 Total: \$396,812
Prin. Invest.: M P BERRIOZABAL
Tech. Officer: JSC/L ARMENDARIZ
CASE Category: 21 - MATHEMATICS

NAG 9 982 UNIVERSITY OF TEXAS AT SAN ANTONIO **9310**
MARS CRYOGENIC STORAGE & DISTRIB THERMAL MODELING
 11/25/1997 - 12/31/1998 FY98: \$15,500 Total: \$15,500
Prin. Invest.: A KARIMI
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 41 - AERONAUTICAL ENGR

NAGW 4114 UNIVERSITY OF TEXAS AT SAN ANTONIO **9311**
ADVANCED PROPULSION STUDIES
 08/18/1994 - 08/31/1997 FY98: -\$191,940 Total: \$806,098
Prin. Invest.: L BOYCE
Tech. Officer: HQ/B L WHITE
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG10 155 UNIVERSITY OF TEXAS AT SAN ANTONIO **9312**
MULTI RESOLUTION IMAGE ANALYSIS FOR ENVIRONMENTAL MAPPING APPLICATIONS
 03/27/1995 - 04/02/1999 FY98: \$99,700 Total: \$398,800
Prin. Invest.: I D DESAI
Tech. Officer: JSC/J C SAAER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 90012 UNIVERSITY OF TEXAS AT SAN ANTONIO **9313**
NASA UNDERGRADUATE SCHOLAR AWARDS FOR RESEARCH
 12/19/1996 - 08/14/1998 FY98: \$0 Total: \$110,590
Prin. Invest.: L R WILLIAMS
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 90045 UNIVERSITY OF TEXAS AT SAN ANTONIO **9314**
USAR
 02/14/1997 - 08/14/1998 FY98: \$0 Total: \$46,480
Prin. Invest.: L WILLIAMS
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

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NAG 1 1694 BRIGHAM YOUNG UNIVERSITY **9315**
A BASELINE COMPARISON OF FUNDAMENTAL APPROACHES TO MDO
 02/22/1995 - 08/31/1997 FY98: -\$1 Total: \$86,652
Prin. Invest.: R BALLING
Tech. Officer: LARC/S L PADULA
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 883 BRIGHAM YOUNG UNIVERSITY **9316**
CAPSTONE PROGRAM PROJECT
 02/17/1994 - 07/31/1997 FY98: \$0 Total: \$81,000
Prin. Invest.: P CARTER, R TODD
Tech. Officer: ARC/B W WEBBON, ARC/W C LOMAX
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 6312 BRIGHAM YOUNG UNIVERSITY **9317**
AN INEXPENSIVE SYNTHETIC APERTURE RADAR FOR GEOPHYSICAL RESEARCH
 10/10/1997 - 03/31/1998 FY98: \$133,010 Total: \$133,010
Prin. Invest.: D LONG
Tech. Officer: GSFC/M BALTUCK
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6782 BRIGHAM YOUNG UNIVERSITY **9318**
COMPUTING RESOURCES FOR ENHANCED ENVIRONMENTAL ASSESSMENT AND RESEARCH CAPABILITIES
 01/16/1998 - 01/14/1999 FY98: \$129,984 Total: \$129,984
Prin. Invest.: M A JENSEN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7711 BRIGHAM YOUNG UNIVERSITY **9319**
FDG FOR 'GEOLOGIC AND ARCHAEOLOGIC APPLICATIONS OF HIGH-RESOLUTION SAR' PI: DAVID V. ARNOLD, SENH98
 09/28/1998 - 03/31/1999 FY98: \$62,468 Total: \$62,468
Prin. Invest.: D V ARNOLD
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 2461 BRIGHAM YOUNG UNIVERSITY **9320**
MODEL BASED WIND RETRIEVAL OF WIND FIELD USING SEA SAT SCATTEROMETER DATA
 07/15/1991 - 09/30/1997 FY98: \$0 Total: \$331,833
Prin. Invest.: D LONG
Tech. Officer: HQ/D ADAMER, HQ/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4959 BRIGHAM YOUNG UNIVERSITY **9321**
INEXPENSIVE APERTURE RADAR FOR GEOPHYSICAL RESEARCH
 03/22/1996 - 09/30/1997 FY98: \$0 Total: \$203,968
Prin. Invest.: D LONG
Tech. Officer: HQ/M BALTUCK
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 10013 BRIGHAM YOUNG UNIVERSITY **9322**
MULTIDISCIPLINARY DESIGN AND ANALYSIS FELLOWSHIP PROGRAM
 10/27/1993 - 08/31/1997 FY98: \$0 Total: \$581,674
Prin. Invest.: C D SORENSEN, S P MAGLEBY, R H TODD
Tech. Officer: HQ/G S SEIDEL, HQ/J R FACEY
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 30114 BRIGHAM YOUNG UNIVERSITY **9323**
STATISTICAL IMPROVEMENTS IN WIND SCATTEROMETRY
 10/01/1997 - 08/31/1998 FY98: \$22,000 Total: \$22,000
Prin. Invest.: D LONG
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1314 UNIVERSITY OF UTAH **9324**
FARS CIRRUS MEASUREMENT FOR FIRE II
 07/23/1991 - 06/30/1998 FY98: \$0 Total: \$388,001
Prin. Invest.: K SASSEN
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1718 UNIVERSITY OF UTAH **9325**
CLOUD SCALE NUMERICAL MODELING OF THE ARCTIC BOUNDARY LAYER
 04/25/1995 - 06/30/1998 FY98: \$0 Total: \$222,000
Prin. Invest.: S K KRUEGER
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1719 UNIVERSITY OF UTAH **9326**
RADIATIVE TRANSFER AND SATELLITE REMOTE SOUNDING OF CIRRUS CLOUDS USING FIRE II IFO DATA
 04/14/1995 - 04/13/1998 FY98: \$0 Total: \$105,600
Prin. Invest.: K N LIU, S C OU
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1903 UNIVERSITY OF UTAH **9327**
APPLICATION OF FIRE PHASE I AND II RESULTS TO MODEL PARAMETERIZATION AND EXTENSION TO OTHER
 02/18/1997 - 02/28/1998 FY98: -\$185 Total: \$36,206
Prin. Invest.: G MACE
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1984 UNIVERSITY OF UTAH **9328**
THERMODYNAMIC AND STRUCTURAL PROPERTIES OF POLYIMIDES & IMIDE MODEL COMPOUNDS FROM EXP & SIM
 12/23/1997 - 12/22/1998 FY98: \$20,000 Total: \$20,000
Prin. Invest.: D SMITH
Tech. Officer: LARC/J A HINKLEY
CASE Category: 12 - CHEMISTRY

NAG 1 2048 UNIVERSITY OF UTAH **9329**
CLOUD SCALE NUMERICAL MODELING OF THE ARCTIC BOUNDARY LAYER
 04/01/1998 - 06/30/1999 FY98: \$72,000 Total: \$72,000
Prin. Investigator: S K KRUEGER
Tech. Officer: LARC/D S MCDUGAL, LARC/J L RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2083 UNIVERSITY OF UTAH **9330**
FACILITY FOR ATMOSPHERIC REMOTE SENSING (FARS) CIRRUS MEASUREMENTS FOR FIRE III
 06/30/1998 - 05/31/1999 FY98: \$57,000 Total: \$57,000
Prin. Investigator: K SASSON
Tech. Officer: LARC/D S MCDUGAL, LARC/J L RAPER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1042 UNIVERSITY OF UTAH **9331**
GUIDANCE OF NONLINEAR NONMINIMUM - PHASE DYNAMIC SYSTEMS
 05/01/1996 - 11/30/1998 FY98: \$18,750 Total: \$68,684
Prin. Investigator: S DEVASIA
Tech. Officer: ARC/G MEYER
CASE Category: 49 - ENGINEERING, OTHER

NAG 2 1106 UNIVERSITY OF UTAH **9332**
EXPERIMENTAL & MODELING PROGRAM FOR THE FORMULATION OF CONCEPTUAL RELATIONSHIPS BETWEEN CONTRAIL...
 01/21/1997 - 03/31/1999 FY98: \$22,025 Total: \$44,050
Prin. Investigator: K SASSEN
Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2241 UNIVERSITY OF UTAH **9333**
VEGETATION-ATMOSPHERE CO2 AND H2O EXCHANGE PROCESSES: STABLE ISOTOPE ANALYSES
 04/08/1993 - 04/14/1998 FY98: \$0 Total: \$323,081
Prin. Investigator: J EHLERINGER
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2678 UNIVERSITY OF UTAH **9334**
RADIATIVE AND CLIMATIC EFFECTS OF CONTRAIL CIRRUS
 08/24/1994 - 02/28/1998 FY98: -\$118,426 Total: \$105,157
Prin. Investigator: K LIQIU
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3132 UNIVERSITY OF UTAH **9335**
IMGRASS RADIATION AND REMOTE SENSING PROGRAM IN SUPPORT OF BSRN
 11/01/1995 - 08/14/1997 FY98: -\$10,000 Total: \$10,000
Prin. Investigator: R PINKER, K N LIQIU
Tech. Officer: GSFC/M D CHOU
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3407 UNIVERSITY OF UTAH **9336**
LIGHT SCATTERING AND REMOTE SENSING OF CIRRUS CLOUDS USING MODIS CHANNELS
 09/09/1996 - 07/31/1997 FY98: -\$60,000 Total: \$30,000
Prin. Investigator: K N LIQIU
Tech. Officer: GSFC/M D KING
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3784 UNIVERSITY OF UTAH **9337**
MODELING OF CARDIOVASCULAR RESPONSE TO WEIGHTLESSNESS
 03/15/1997 - 12/31/1998 FY98: -\$6,400 Total: \$124,459
Prin. Investigator: K SHARP
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 3832 UNIVERSITY OF UTAH **9338**
DEVELOPMENT OF EARTH OCCULTATION TECHNIQUE ABOVE 1 HIGH ENERGY EMISSION FROM GAMMA-RAY BURSTS, \$39,9
 11/27/1996 - 11/30/1998 FY98: \$18,000 Total: \$77,983
Prin. Investigator: B L DINGUS
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3942 UNIVERSITY OF UTAH **9339**
ORBITING ARRAY OF WIDE-ANGLE LIGHT COLLECTORS (OWL ORBITING "EYES") TO STUDY AIR SHOWERS INITIATED BY
 03/03/1997 - 02/28/1999 FY98: \$60,622 Total: \$120,646
Prin. Investigator: E C LOH
Tech. Officer: GSFC/J F ORMES
CASE Category: 11 - ASTRONOMY

NAG 5 4452 UNIVERSITY OF UTAH **9340**
RADIATION-INDUCED ANTICARCINOGENESIS BY THIAZOLIDINE PRODRUGS
 05/20/1997 - 02/28/1999 FY98: \$184,901 Total: \$362,768
Prin. Investigator: R WARTERS
Tech. Officer: GSFC/W SHIMMERLING
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 5195 UNIVERSITY OF UTAH **9341**
PROPOSAL FOR SUPPORT OF THE 26TH INTERNATIONAL COSMIC RAY CONFERENCE, UNIVERSITY OF UTAH 1999
 05/21/1998 - 12/31/1998 FY98: \$29,740 Total: \$29,740
Prin. Investigator: E LOH
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 5 6458 UNIVERSITY OF UTAH **9342**
CLOUD PROPERTY & SURFACE RADIATION OBSERVATIONS & DIAGNOSTICS IN SUPPORT OF EOS, CERES, MODIS & MISR
 10/14/1997 - 09/30/1999 FY98: \$920,741 Total: \$920,741
Prin. Investigator: G MACE
Tech. Officer: GSFC/D STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6646 UNIVERSITY OF UTAH **9343**
ENHANCEMENT OF CAPABILITIES IN HYPERSPECTRAL AND REMOTE SENSING FOR ENVIRONMENTAL ASSESSMENT
 12/04/1997 - 11/30/1998 FY98: \$91,865 Total: \$91,865
Prin. Investigator: G HEPNER
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7447 UNIVERSITY OF UTAH **9344**
CONTINUED SUPPORT OF THE GCTE FOCUS 1 OFFICE (ECOSYSTEM PHYSIOLOGY)
 06/19/1998 - 07/31/2001 FY98: \$76,473 Total: \$76,473
Prin. Investigator: J R EHLERINGER
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7521 UNIVERSITY OF UTAH **9345**
**INVESTIGATION OF PHYSICAL PROCESS DYNAMICS DURING COLD SEA-
 SON FLOODING**
 06/18/1998 - 06/14/2001 FY98: \$37,247 Total: \$37,247
Prin. Invest.: D TARBOTON
Tech. Officer: GSFC/E ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 1999 UNIVERSITY OF UTAH **9346**
MAGPIE, A MAGNETIC PASSIVE ISOTOPE EXPERIMENT
 07/11/1990 - 03/31/1998 FY98: \$0 Total: \$757,973
Prin. Invest.: M H SALAMON
Tech. Officer: HQ/W V JONES, HQ/J C LING
CASE Category: 13 - PHYSICS

NAGW 3687 UNIVERSITY OF UTAH **9347**
INTERMOUNTAIN NETWORK AND SCIENTIFIC COMPUTATION C ENTER
 09/09/1993 - 09/30/1998 FY98: \$0 Total: \$14,974,135
Prin. Invest.: R PUGMIRE
Tech. Officer: HQ/W C STAMPER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4338 UNIVERSITY OF UTAH **9348**
MODELING OF CARDIOVASCULAR RESPONSE TO WEIGHTLESSNESS
 03/04/1995 - 12/31/1997 FY98: \$0 Total: \$258,480
Prin. Invest.: M T SHARP
Tech. Officer: HQ/R J WHITE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAGW 4914 UNIVERSITY OF UTAH **9349**
RADIATION ANTICARCINOGENESIS BY THIAZOLIDINE PRODRUGS
 02/05/1996 - 10/30/1997 FY98: \$0 Total: \$170,641
Prin. Invest.: R T WARTERS, PH.D.
Tech. Officer: HQ/W SCHIMMERLING
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 1 189 UNIVERSITY OF UTAH **9350**
**IMPROVEMENT AND APPLICATION OF THE UU RADIATION PARAMETER-
 IZATION PROGRAM**
 05/25/1994 - 03/31/1998 FY98: -\$82,475 Total: \$72,925
Prin. Invest.: K N LIU, Q FU
Tech. Officer: LARC/T P CHARLOCK, LARC/B A WIELICKY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 256 UNIVERSITY OF UTAH **9351**
**DEVELOPMENT OF PREDICTIVE CAPABILITIES FOR DAMAGE TOLERANCE
 IN STITCHED COMPOSITE MATERIALS**
 05/01/1997 - 04/30/1999 FY98: \$70,096 Total: \$92,896
Prin. Invest.: D O ADAMS
Tech. Officer: LARC/A T NETTLES
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 851 UNIVERSITY OF UTAH **9352**
**WASTE INCINERATION FOR RESOURCE RECOVERY IN REGENERATIVE
 LIFE SUPPORT SYSTEMS**
 04/15/1994 - 09/30/1998 FY98: \$0 Total: \$569,049
Prin. Invest.: J S LIGHTLY, D W PERSHING
Tech. Officer: ARC/J W FISHER/R MACELROY
CASE Category: 59 - LIFE SCIENCE, OTHER

NCC 5 297 UNIVERSITY OF UTAH **9353**
**CARBON AND OXYGEN ISOTOPE RATIO CO2 FLUX ANALYSES AT THE
 SOIL, CANOPY, AND LANDSCAPE SCALES**
 06/16/1998 - 02/28/1999 FY98: \$168,759 Total: \$168,759
Prin. Invest.: J EHRLINGER
Tech. Officer: GSFC/D DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30257 UNIVERSITY OF UTAH **9354**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/20/1994 - 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: D CHAPMAN
Tech. Officer: HQ/M BALTUCK, HQ/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51673 UNIVERSITY OF UTAH **9355**
GRAD STUDENT RESEARCH PROGRAM
 08/15/1996 - 06/30/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: R SHARP
Tech. Officer: HQ/G LESANE
CASE Category: 49 - ENGINEERING, OTHER

NGT 1 52189 UNIVERSITY OF UTAH **9356**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/12/1998 - 06/30/1999 FY98: \$0 Total: \$0
Prin. Invest.: M D JONES
Tech. Officer: LARC/P S MINER
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 30078 UNIVERSITY OF UTAH **9357**
**REMOTE SENSING OF CIRRUS CLOUDS USING MODIS AIRBORNE
 SENSORS**
 09/11/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: K LIU
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50088 UNIVERSITY OF UTAH **9358**
**CARDIOVASCULAR RESPONSE TO GRAVITATIONAL ACCELERATION
 HYDRAULIC MOCK CIRCULATION SYSTEM**
 09/11/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: K SHARP
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1871 UTAH STATE UNIVERSITY **9359**
**AN EXPERIMENTAL AND NUMERICAL INVESTIGATION OF TURBULENT VOR-
 TEX BREAKDOWN AND AIRCRAFT WAKES**
 10/02/1996 - 12/18/1998 FY98: \$43,000 Total: \$99,055
Prin. Invest.: D SPALL
Tech. Officer: LARC/T B GATSKI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1999 UTAH STATE UNIVERSITY **9360**
EXPERIMENTAL INVESTIGATION OF WINGTIP VORTEX
 02/03/1998 - 02/02/1999 FY98: \$52,000 Total: \$52,000
Prin. Invest.: A E ANDERSON
Tech. Officer: LARC/T B GATSKI
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 1484 UTAH STATE UNIVERSITY **9361**
THE FLOW OF PLASMA IN THE SOLAR TERRESTRIAL ENVIRONMENT
 11/26/1990 - 03/31/1998 FY98: \$275,000 Total: \$2,127,745
Prin. Invest.: R W SCHUNK
Tech. Officer: GSFC/T J BIRMINGHAM
CASE Category: 13 - PHYSICS

NAG 5 2043 UTAH STATE UNIVERSITY **9362**
MESOSCALE STUDY OF SURFACE HEAT FLUXES AND BOUNDARY LAYER PROCESSES IN A DESERT REGION
 07/28/1992 - 02/14/1997 FY98: \$0 Total: \$345,144
Prin. Invest.: C BINGHAM
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2748 UTAH STATE UNIVERSITY **9363**
DYNAMO ELECTRIC FIELD AND CURRENTS AS DETERMINED FROM UARS WIND MEASUREMENT
 10/06/1994 - 10/14/1997 FY98: \$0 Total: \$139,500
Prin. Invest.: D J CRAIN
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4469 UTAH STATE UNIVERSITY **9364**
SATELLITE STUDIES OF STORM TIME MID- AND LOW-LATITUDE DYNAMICS
 05/21/1997 - 03/31/2001 FY98: \$77,000 Total: \$151,000
Prin. Invest.: D G FEJER
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 4496 UTAH STATE UNIVERSITY **9365**
CROP OPTIMIZATION USING CO₂ GAS-EXCHANGE
 05/06/1997 - 03/31/1998 FY98: \$0 Total: \$156,489
Prin. Invest.: B BUGBEE
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 5022 UTAH STATE UNIVERSITY **9366**
AN INVESTIGATION OF THE EFFECTS OF MESOSPHERIC AEROSOLS ON THE ODD-OXYGEN CHEM & DISTRIBUTION
 04/13/1994 - 12/31/1997 FY98: \$0 Total: \$447,928
Prin. Invest.: P J ESPY
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5044 UTAH STATE UNIVERSITY **9367**
AN EXPERIMENT TO STUDY SPORADIC SODIUM LAYERS IN THE EARTH'S MESOSPHERE AND LOWER THERMOSPHERE
 07/28/1995 - 01/31/1999 FY98: \$48,114 Total: \$143,227
Prin. Invest.: D M SWENSON
Tech. Officer: GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5046 UTAH STATE UNIVERSITY **9368**
A ROCKET INVESTIGATION OF MESOSPHERIC EDDY DIFFUSION EFFECTS ON AIRGLOW & ODD OXYGEN CHEMISTRY
 08/03/1995 - 07/01/1999 FY98: \$0 Total: \$271,756
Prin. Invest.: J C ULWICK
Tech. Officer: GSFC/P H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5181 UTAH STATE UNIVERSITY **9369**
MESOSPHERE-THERMOSPHERE EMISSIONS FOR OZONE REMOTE SENSING (METEORS)
 06/14/1995 - 01/31/1999 FY98: \$33,891 Total: \$323,181
Prin. Invest.: P ESPY
Tech. Officer: GSFC/L GURKIN
CASE Category: 13 - PHYSICS

NAG 5 5187 UTAH STATE UNIVERSITY **9370**
CODA - COUPLING OF DYNAMICS AND AURORA FUNDING FOR FIRST YEAR OF GRANT
 03/30/1994 - 12/31/1998 FY98: \$150,040 Total: \$150,040
Prin. Invest.: C M SWENSON, NONE
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5139 UTAH STATE UNIVERSITY **9371**
A ROCKET INVESTIGATION OF ELECTRON DENSITY STRUCTURE, E-FIELDS AND AEROSOLS DURING PMSE AND N
 03/27/1994 - 12/31/1998 FY98: \$133,748 Total: \$133,748
Prin. Invest.: J C ULWICK
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6568 UTAH STATE UNIVERSITY **9372**
ENHANCEMENT OF REMOTE SENSING ANALYSIS CAPABILITIES AT UTAH STATE UNIVERSITY
 12/06/1997 - 10/31/1998 FY98: \$397,528 Total: \$397,528
Prin. Invest.: R GILLIES
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6792 UTAH STATE UNIVERSITY **9373**
TEMPERATURE-DEPENDENT RATE CONSTANTS FOR NO(V)+O V IRRADIATION ENERGY TRANSFER
 02/17/1998 - 02/28/1999 FY98: \$86,140 Total: \$86,140
Prin. Invest.: J DODD
Tech. Officer: GSFC/M MELLOTT
CASE Category: 11 - ASTRONOMY

NAG 5 7597 UTAH STATE UNIVERSITY **9374**
SNOW HYDROLOGY: THE PARAMETERIZATION OF SUBGRID PROCESSES WITHIN A PHYSICALLY BASED SNOW ENERGY
 07/21/1998 - 07/14/2001 FY98: \$163,240 Total: \$163,240
Prin. Invest.: D G TARBOTON
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 9 907 UTAH STATE UNIVERSITY **9375**
DATABASE FOR GROWING PLANTS IN CONTROLLED ENVIRON.
 09/19/1996 - 09/30/1997 FY98: -\$1 Total: \$19,999
Prin. Invest.: F B SALISBRUY
Tech. Officer: JSC/D J BARTA
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 999 UTAH STATE UNIVERSITY **9376**
CROP OPTIMIZATION AND FAILURE ANALYSIS USING CO₂
 04/25/1998 - 04/24/1999 FY98: \$91,000 Total: \$91,000
Prin. Invest.: B G BUGBEE, L R JOHNSON
Tech. Officer: JSC/D HENNINGER
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAGW 4365 UTAH STATE UNIVERSITY **9377**
CROP PRODUCTION OPTIMIZATION USING CO2 GAS-EXCHANGE E
 03/31/1995 – 03/31/1998 FY98: \$0 Total: \$303,383
Prin. Invest.: B G BUGBEE
Tech. Officer: HQ/M AVERNER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAGW 4425 UTAH STATE UNIVERSITY **9378**
**SATELLITE STUDIES OF STORM TIME MID AND LOW LATITU DE ION-
 OSPHERIC ELECTRODYNAMICS**
 04/20/1995 – 03/31/1998 FY98: \$0 Total: \$139,000
Prin. Invest.: B G FEJER
Tech. Officer: HQ/J D BOHLIN
CASE Category: 13 – PHYSICS

NAS 1 20467 UTAH STATE UNIVERSITY **9379**
**SOUNDING OF THE ATMOSPHERE USING BROADBAND EMISSION RADIOM-
 ETRY (SABER) INSTRUMENT**
 03/28/1995 – 01/28/2000 FY98: \$7,583,487 Total: \$12,817,570
Prin. Invest.: J ULWICK, D J BAKER, R ESPLIN
Tech. Officer: LARC/M D VANEK, LARC/T C DENKINS
CASE Category: 42 – ASTRONAUTICAL ENGR

NAS 2 13659 UTAH STATE UNIVERSITY **9380**
CONDENSATE RECOVERY SYSTEM
 08/23/1994 – 03/31/1998 FY98: \$0 Total: \$306,813
Prin. Invest.: G BINGHAM
Tech. Officer: ARC/A A GONZALES
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAS 3 97106 UTAH STATE UNIVERSITY **9381**
HYDROGEN ON-ORBIT STORAGE AN SUPPLY EXPERIMENT
 01/24/1997 – 08/24/1997 FY98: -\$35,000 Total: \$85,000
Prin. Invest.: J C BATTY
Tech. Officer: LERC/D W PLACHTA
CASE Category: 42 – ASTRONAUTICAL ENGR

NAS 8 37110 UTAH STATE UNIVERSITY **9382**
**STUDY ENTITLED "RESEARCH ON ORBITAL PLASMA-ELECTRODYNAM-
 ICS."**
 05/04/1987 – 03/31/1998 FY98: \$0 Total: \$201,000
Prin. Invest.: R W SCHUNK, K W SCHUNK
Tech. Officer: MSFC/R LAKE, MSFC/B DUNCAN
CASE Category: 42 – ASTRONAUTICAL ENGR

NAS 8 97107 UTAH STATE UNIVERSITY **9383**
REMOTE SENSING AND MODELING OF URBAN LANDCOVER
 01/29/1997 – 01/28/2000 FY98: \$48,799 Total: \$135,127
Prin. Invest.: R R GILLIES
Tech. Officer: MSFC/T MILLER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAS 8 98221 UTAH STATE UNIVERSITY **9384**
**ELECTRONIC PROPERTIES OF MATERIALS WITH APPLICATION TO SPACE-
 CRAFT CHARGING**
 06/18/1998 – 06/17/1999 FY98: \$89,196 Total: \$89,196
Prin. Invest.: J R DENNISON
Tech. Officer: MSFC/S PEARSON
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCC 1 265 UTAH STATE UNIVERSITY **9385**
**EXPERIMENTAL AND ANALYTICAL ASSESSMENT OF USING LARGE FOCAL
 PLANE ARRAYS AND ONBOARD DATA SELECTIO**
 09/30/1997 – 01/31/1998 FY98: \$49,741 Total: \$74,741
Prin. Invest.: G E BINGHAM, R J HUPPI
Tech. Officer: LARC/V S PARSONS, LARC/D E HINTON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 1 307 UTAH STATE UNIVERSITY **9386**
**IR SOUNDER DATA COMPRESSION ISSUES IN SUPPORT OF AGS GOES
 ADVANCED IMAGER-SOUNDER**
 07/28/1998 – 12/31/1998 FY98: \$57,060 Total: \$57,060
Prin. Invest.: D K ZHOU, G E BINGHAM
Tech. Officer: LARC/Y S PARSONS, LARC/A M LARAR
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 2 831 UTAH STATE UNIVERSITY **9387**
**SEED-TO-SEED EXPERIMENT (EXPERIMENTS ON RUSSIAN SP ACE STA-
 TION MIR)**
 10/26/1993 – 06/30/1999 FY98: \$329,188 Total: \$3,535,217
Prin. Invest.: W F CAMPBELL, G E BINGHAM, D L BUBENHEIM
Tech. Officer: ARC/G C JAHNS, ARC/C M WINGET
CASE Category: 55 – AGRICULTURE

NCC 5 219 UTAH STATE UNIVERSITY **9388**
HOLOGRAPHIC LIDAR CONCEPTS AND APPLICATIONS
 08/19/1997 – 08/14/1998 FY98: \$0 Total: \$22,820
Prin. Invest.: T D WILKERSON
Tech. Officer: GSFC/G SCHWEMMER
CASE Category: 11 – ASTRONOMY

NCC 8 121 UTAH STATE UNIVERSITY **9389**
THERMAL ION DYNAMICS EXPERIMENT (TIDE)
 11/01/1996 – 10/31/1998 FY98: \$0 Total: \$105,053
Prin. Invest.: W J RAITT
Tech. Officer: MSFC/T E MOORE, MSFC/M O CHANDLER
CASE Category: 13 – PHYSICS

NCC13 18 UTAH STATE UNIVERSITY **9390**
**NASA-SPONSORED VISTING INVESTIGATOR PROGRAM AFFILIATE CEN-
 TER FOR THE WESTERN UNITED STATES**
 09/12/1996 – 12/31/1998 FY98: \$168,750 Total: \$293,451
Prin. Invest.: D J BAKER
Tech. Officer: SSC/H CARR
CASE Category: 79 – SOCIAL SCIENCE, OTHER

NGT 40014 UTAH STATE UNIVERSITY **9391**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 10/04/1989 – 01/31/1998 FY98: \$0 Total: \$2,453,927
Prin. Invest.: F J REDD, D J BAKER
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 3 52302 UTAH STATE UNIVERSITY **9392**
GRADUATE STUDENT RESEARCH PROGRAM
 07/01/1995 – 06/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: J R DENNISON
Tech. Officer: LERC/L SHAW
CASE Category: 13 – PHYSICS

NGT 5 40047 UTAH STATE UNIVERSITY **9393**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE
AND FELLOWSHIP PROGRAM
 02/11/1997 - 01/31/2001 FY98: \$478,122 Total: \$823,122
Prin. Invest.: D BAKER
Tech. Officer: GSFC/L KEEFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50011 UTAH STATE UNIVERSITY **9394**
LAND COVER CHANGE IN THE GREAT BASIN
 11/25/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: C CALDWELL
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52866 UTAH STATE UNIVERSITY **9395**
MONITORING OZONE CONCENTRATIONS AND INJURY IN HIGH ELEVATION
DOUGLAS FIR NEAR SALT LAKE CITY
 07/24/1998 - 06/30/2000 FY98: \$22,000 Total: \$22,000
Prin. Invest.: F BAKER
Tech. Officer: MSFC/J F DOWDY
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT10 52609 UTAH STATE UNIVERSITY **9396**
GRADUATE STUDENT RESEARCHERS PROGRAM
 04/18/1996 - 07/30/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: D L BISHOP
Tech. Officer: KSC/R WHEELER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT10 52617 UTAH STATE UNIVERSITY **9397**
PLANT RESIDE DEGRADATION PRODUCTS IN REGENERATIVE LIFE SUP-
PORT SYSTEMS
 07/14/1998 - 07/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: P GROSSEL
Tech. Officer: KSC/R WHEELER
CASE Category: 59 - LIFE SCIENCE, OTHER

VERMONT

NAG 5 1668 MIDDLEBURY COLLEGE **9398**
DETAILED X-RAY IMAGES OF THE SN 1006 SUPERNOVA REMNANT
 06/27/1991 - 12/31/1997 FY98: \$0 Total: \$81,000
Prin. Invest.: P F WINKLER
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 6118 MIDDLEBURY COLLEGE **9399**
CORONAL MASS EJECTIONS AND LARGE-SCALE EVOLUTION O
 08/08/1997 - 09/14/1999 FY98: \$7,385 Total: \$50,958
Prin. Invest.: P WOLFSON
Tech. Officer: GSFC/W J WAGNER
CASE Category: 11 - ASTRONOMY

NAGW 2141 MIDDLEBURY COLLEGE **9400**
CURRENT SHEET FORMATION AND LOSS OF EQUILIBRIUM
 08/08/1990 - 09/30/1997 FY98: \$0 Total: \$254,477
Prin. Invest.: R WOLFSON
Tech. Officer: HQ/J D BOHLIN, HQ/S KANE
CASE Category: 13 - PHYSICS

NAG 3 1636 UNIVERSITY OF VERMONT **9401**
DECOUPLING THE ROLE OF INERTIA AND GRAVITY ON PARTICLE DES-
PERSION
 08/05/1993 - 06/30/2000 FY98: -\$7,885 Total: \$7,321
Prin. Invest.: K SQUIRES
Tech. Officer: LERC/T K GLASGOW
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 4138 UNIVERSITY OF VERMONT **9402**
MAPPING NORTHERN METHANE SOURCES AND SINKS IN THE USING
RADARSAT
 03/17/1997 - 12/31/1998 FY98: \$95,000 Total: \$142,500
Prin. Invest.: D MORRISSEY
Tech. Officer: GSFC/R H THOMAS
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 5 5135 UNIVERSITY OF VERMONT **9403**
EFFECTS OF A SOUNDING ROCKET FLIGHT ON DROSOPHILA- TEST BED
FOR MOTILITY & METABOLISM EXPERIMENTS
 04/14/1997 - 10/13/1999 FY98: \$0 Total: \$34,947
Prin. Invest.: T KELLER
Tech. Officer: GSFC/W JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 7217 UNIVERSITY OF VERMONT **9404**
CORE FORMATION UNDER DYNAMIC CONDITIONS: AN EXPERIMENTAL
STUDY
 04/28/1998 - 02/28/2000 FY98: \$30,000 Total: \$30,000
Prin. Invest.: T RUSHMER
Tech. Officer: HQ/J BOYCE
CASE Category: 11 - ASTRONOMY

NAG 8 1036 UNIVERSITY OF VERMONT **9405**
JOVE
 12/03/1997 - 05/31/1997 FY98: \$0 Total: \$60,000
Prin. Invest.: Y YU
Tech. Officer: MSFC/F SIX
CASE Category: 13 - PHYSICS

NAG 8 1211 UNIVERSITY OF VERMONT **9406**
JOVE RESEARCH
 01/21/1997 - 08/31/1999 FY98: \$11,000 Total: \$55,000
Prin. Invest.: G MIRCHANDANI
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 3404 UNIVERSITY OF VERMONT **9407**
SELF-GENERATED BENDING MOMENTS IN ROOT GRAVITROPISM
 05/26/1997 - 09/01/1998 FY98: \$0 Total: \$45,451
Prin. Invest.: P M LINTILHAC
Tech. Officer: HQ/T W HALSTEAD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 4448 UNIVERSITY OF VERMONT **9408**
MAPPING NORTHERN METHANE SOURCES AND SINKS IN THE BOREAL
FOREST REGIONS USING RADARSAT
 02/27/1996 - 09/01/1997 FY98: \$0 Total: \$95,000
Prin. Invest.: L MORRISSEY
Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NASA'S UNIVERSITY PROGRAM

NAGW 5026 UNIVERSITY OF VERMONT **9409**
CHARACTERIZATION OF METHANE SOURCE AND SINK AREAS IN NORTH-ERN ECOSYSTEMS USING SYNTHETIC APERTURE
 04/11/1996 - 09/30/1997 FY98: \$0 Total: \$130,000
Prin. Invest.: L A MORRISSEY, G P LIVINGSTON
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 5196 UNIVERSITY OF VERMONT **9410**
MAPPING NORTHERN ECOSYSTEMS WITH POLDER: APPLICATIONS FOR CIRCUMPOLAR METHANE EXCHANGE
 12/05/1996 - 12/31/1998 FY98: \$0 Total: \$80,000
Prin. Invest.: D P LIVINGSTON, L A MORRISSEY
Tech. Officer: ARC/V C VANDERBILT
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 40054 UNIVERSITY OF VERMONT **9411**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 05/29/1992 - 09/30/1997 FY98: -\$11,558 Total: \$822,442
Prin. Invest.: W D LAKIN, T S KELLER
Tech. Officer: HQ/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 60012 UNIVERSITY OF VERMONT **9412**
EPSCOR PROGRAM
 08/18/1995 - 07/31/1997 FY98: \$0 Total: \$88,000
Prin. Invest.: T KELLER
Tech. Officer: HQ/A S MCGEE, HQ/E T SCHWARTZ
CASE Category: 59 - LIFE SCIENCE, OTHER

NGT 5 40045 UNIVERSITY OF VERMONT **9413**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 01/24/1997 - 02/28/2001 FY98: \$256,250 Total: \$461,250
Prin. Invest.: W D LAKIN
Tech. Officer: HQ/J DASCH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 60000 UNIVERSITY OF VERMONT **9414**
MUSCULOSKELETAL COUNTERMEASURES TO SPACEFLIGHT
 09/10/1997 - 12/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: T S KELLER/MILLER
Tech. Officer: GSFC/L CHAMBERS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 60002 UNIVERSITY OF VERMONT **9415**
BIOMEDICAL RESPONSE OF SOFT TISSUES TO A SIMULATED
 09/11/1997 - 07/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: T KELLER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

VIRGINIA

NAG 1 1443 CHRISTOPHER NEWPORT UNIVERSITY **9416**
OPTICAL FIBER SPECTROSCOPY
 06/16/1992 - 12/31/1998 FY98: \$22,023 Total: \$242,359
Prin. Invest.: A M BUONCRISTIANI
Tech. Officer: LARC/R S ROGOWSKI
CASE Category: 45 - ELECTRICAL ENGR

NAG 1 1641 CHRISTOPHER NEWPORT UNIVERSITY **9417**
TEACHER ENHANCEMENT INSTITUTE FOR SCIENCE, MATH & TECHNOLOGY USING PROBLEM BASED
 07/21/1994 - 06/30/1998 FY98: -\$41,441 Total: \$670,680
Prin. Invest.: R H PETERSON, B BARTELS
Tech. Officer: LARC/S E MASSENBERG, LARC/S CANRIGHT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1888 CHRISTOPHER NEWPORT UNIVERSITY **9418**
THREE-DIMENSIONAL VORTEX MODELING OF AIRFRAME NOISE SOURCES
 04/18/1997 - 04/17/1998 FY98: \$29,586 Total: \$39,586
Prin. Invest.: J E MARTIN
Tech. Officer: LARC/J C HARDIN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1994 CHRISTOPHER NEWPORT UNIVERSITY **9419**
TIGER PAU: THERMALLY INDUCED GRADIENT EFFECTS PARAMETER ASSESSMENT UNDERTAKING
 01/22/1998 - 01/21/1999 FY98: \$20,002 Total: \$20,002
Prin. Invest.: J M HEREFORD
Tech. Officer: LARC/R D RHEW, LARC/P A PARKER
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

NAG 1 2112 CHRISTOPHER NEWPORT UNIVERSITY **9420**
TECHNOLOGY DEVELOPMENT, IMPLEMENTATION, AND ASSESSMENT: K-16 PRE-SERVICE, IN-SERVICE, AND DISTANCE
 09/16/1998 - 07/31/1999 FY98: \$96,000 Total: \$96,000
Prin. Invest.: W B WILLIAMS, JR, L V HALE
Tech. Officer: LARC/T E PINELLI, LARC/R A HATHAWAY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 5 6503 CHRISTOPHER NEWPORT UNIVERSITY **9421**
VALIDATION OF MSMT. OF POLLUTION IN THE TROPOSPHERE (MOPITT) EXPERIMENT BY GROUND-BASED INFRARED SO
 10/29/1997 - 09/30/1999 FY98: \$240,751 Total: \$240,751
Prin. Invest.: N POUATCHEV
Tech. Officer: GSFC/D STARR
CASE Category: 11 - ASTRONOMY

NAG 8 1292 CHRISTOPHER NEWPORT UNIVERSITY **9422**
NASA/UNIV JOINT VENTURE IN SPACE SCIENCE (JOVE) FIRST YEAR FUNDING
 04/11/1996 - 03/31/1999 FY98: \$13,383 Total: \$64,148
Prin. Invest.: D C ANYIWO
Tech. Officer: MSFC/D SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 3736 CHRISTOPHER NEWPORT UNIVERSITY **9423**
CONTROLS ON METHANE EMISSIONS FROM VEGETATED WETLANDS
 09/09/1993 - 09/30/1997 FY98: \$0 Total: \$345,000
Prin. Invest.: G J WHITING, J CHANTON
Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 1 178 CHRISTOPHER NEWPORT UNIVERSITY **9424**
SHIELDING FROM SPACE RADIATIONS NLPN 93-313
 04/13/1993 - 01/31/1998 FY98: \$0 Total: \$399,758
Prin. Invest.: C K CHANG
Tech. Officer: LARC/J L SHINN, LARC/E J CONWAY
CASE Category: 13 - PHYSICS

NCC 1 204 CHRISTOPHER NEWPORT UNIVERSITY **9425**
APPLICATION OF SPECTROSCOPIC METHODS TO STUDY ATMOSPHERIC
TRACE GAS CONSTITUENTS
 11/23/1994 - 09/30/1998 FY98: \$73,923 Total: \$359,057
Prin. Invest.: A M BUONCRISTIANI
Tech. Officer: LARC/G W SACHSE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 277 CHRISTOPHER NEWPORT UNIVERSITY **9426**
DEV OF A 3-DIMENSIONAL HEAVY ION, CHARGED PARTICLE BOLTZMANN
TRANSPORT SOLVER
 02/13/1998 - 01/31/1999 FY98: \$82,844 Total: \$82,844
Prin. Invest.: C K CHANG
Tech. Officer: LARC/R C SINGLETERRY, JR., LARC/J W WILSON
 CASE Category: 13 - PHYSICS

NCC 1 318 CHRISTOPHER NEWPORT UNIVERSITY **9427**
AIRCRAFT AND GROUND-BASED SPECTROSCOPIC MEASUREMENTS OF
TROPOSPHERIC CO, CO₂, CH₄, N₂O, AND H₂O
 09/18/1998 - 09/30/2000 FY98: \$45,000 Total: \$45,000
Prin. Invest.: N POUATCHER, M BUONCRISTIANI
Tech. Officer: LARC/G W SOCHSE, LARC/D E HINTON
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1063 COLLEGE OF WILLIAM AND MARY **9428**
QUANTITATIVE NONDESTRUCTIVE EVALUATION OF MATERIALS AND
STRUCTURES
 09/26/1989 - 01/31/1997 FY98: -\$5,194 Total: \$827,281
Prin. Invest.: B T SMITH, NONE
Tech. Officer: LARC/P H JOHNSTON
 CASE Category: 13 - PHYSICS

NAG 1 1548 COLLEGE OF WILLIAM AND MARY **9429**
DEGRADATION STUDIES ON MATRIX/FIBER REINFORCED COMPOSITE
MATERIALS FOR THE HIGH SPEED RESEARCH PROG
 10/21/1993 - 12/31/1997 FY98: \$5,040 Total: \$104,417
Prin. Invest.: R A OKWALL
Tech. Officer: LARC/P R YOUNG
 CASE Category: 12 - CHEMISTRY

NAG 1 1671 COLLEGE OF WILLIAM AND MARY **9430**
INTERFACE STRUCTURAL INTEGRITY EVALUATION USING ULTRASONIC
LAMB WAVES - AIRCRAFT APPLICATION
 01/20/1995 - 01/19/1998 FY98: \$0 Total: \$242,897
Prin. Invest.: K J SUN, D MANOS, M K HINDERS
Tech. Officer: LARC/P H JOHNSTON
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 1 1783 COLLEGE OF WILLIAM AND MARY **9431**
ACTUATOR PLACEMENT FOR ACTIVE SOUND AND VIBRATION CONTROL
 12/05/1995 - 12/10/1998 FY98: \$21,664 Total: \$80,060
Prin. Invest.: R K KINCAID
Tech. Officer: LARC/S L PADULA
 CASE Category: 21 - MATHEMATICS

NAG 1 1814 COLLEGE OF WILLIAM AND MARY **9432**
TECHNOLOGIES FOR NDE OF SURFACES AND THIN COATINGS
 03/15/1996 - 03/14/1998 FY98: -\$281 Total: \$171,578
Prin. Invest.: D M MANOS
Tech. Officer: LARC/D M HEATH, LARC/K E CRAMER
 CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1817 COLLEGE OF WILLIAM AND MARY **9433**
INFORMATION-ADAPTIVE IMAGE CODING AND RESTORATION
 06/12/1991 - 09/30/1997 FY98: \$0 Total: \$149,953
Prin. Invest.: Z RAHMAN, S K PARK
Tech. Officer: LARC/F O HUCK, LARC/D J JOBSON
 CASE Category: 22 - COMPUTER SCIENCE

NAG 1 1856 COLLEGE OF WILLIAM AND MARY **9434**
FRICTION DRAG MEASUREMENTS FOR JET ENGINE NOZZLE LINERS
 07/24/1996 - 06/30/1998 FY98: \$0 Total: \$74,691
Prin. Invest.: D MANOS, D DETURRIS
Tech. Officer: LARC/J M SEINER, LARC/M K PONTON
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1921 COLLEGE OF WILLIAM AND MARY **9435**
P-V-T PROPERTIES OF POLYIMIDES AND MODEL IMIDE COMPOUNDS
 05/13/1997 - 09/30/1997 FY98: -\$894 Total: \$18,147
Prin. Invest.: R A ORWOLL
Tech. Officer: LARC/J A HINKLEY, LARC/T S GATES
 CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2077 COLLEGE OF WILLIAM AND MARY **9436**
BELL-CURVE BASED EVOLUTIONARY STRATEGIES FOR STRUCTURAL
OPTIMIZATION
 06/08/1998 - 07/31/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: R K KINCAID
Tech. Officer: LARC/J SOBIESKI
 CASE Category: 41 - AERONAUTICAL ENGR

NAS 1 19656 COLLEGE OF WILLIAM AND MARY **9437**
PHYSICAL, MATHEMATICAL, AND COMPUTER SCIENCE RESEARCH
 08/06/1992 - 08/05/1997 FY98: \$0 Total: \$2,985,375
Prin. Invest.: C S WELCH, M C WU
Tech. Officer: LARC/E J PRIOR, LARC/R L YANG
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAS 1 98039 COLLEGE OF WILLIAM AND MARY **9438**
SAGE SCIENCE INVESTIGATION
 06/30/1998 - 06/29/2000 FY98: \$102,339 Total: \$102,339
Prin. Invest.: D C BENNER
Tech. Officer: LARC/W P CHU
 CASE Category: 99 - MULTIDISCIPL, OTHER

NCC 1 43 COLLEGE OF WILLIAM AND MARY **9439**
HALOE SCIENCE INVESTIGATION
 07/16/1980 - 07/31/1998 FY98: \$81,560 Total: \$1,421,263
Prin. Invest.: D C BENNER
Tech. Officer: LARC/J PARK, LARC/J M RUSSELL
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 80 COLLEGE OF WILLIAM AND MARY **9440**
HIGH RESOLUTION SPECTROSCOPY TO SUPPORT ATMOSPHERIC MEASUREMENTS
 07/18/1983 - 03/31/1999 FY98: \$110,187 Total: \$1,318,634
Prin. Invest.: D C BENNER, M D VENKATARAMAN
Tech. Officer: LARC/M A SMITH, LARC/C P RINSLAND
 CASE Category: 13 - PHYSICS

NCC 1 150 COLLEGE OF WILLIAM AND MARY **9441**
DEVELOPMENT OF ADVANCED POLYMERIC ADHESIVES AND FABRICATION AND EVALUATION OF COMPOSITE MATERIALS
 03/08/1991 – 12/31/1997 FY98: -\$1 Total: \$833,650
Prin. Invest.: R A ORWOLL
Tech. Officer: LARC/T L ST. CLAIR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 1 160 COLLEGE OF WILLIAM AND MARY **9442**
INCONGRUITY, INCONGRUITY RESOLUTION & MENTAL STATES MEASURE & MODIFICATION OF SITUATIONAL AWARENESS
 09/24/1991 – 12/31/1997 FY98: -\$1 Total: \$99,490
Prin. Invest.: P L DERKS, L S GILLIKIN
Tech. Officer: LARC/A T POPE, LARC/J R COMSTOCK
CASE Category: 69 – PSYCHOLOGY, OTHER

NCC 1 239 COLLEGE OF WILLIAM AND MARY **9443**
THE DEVELOPMENT OF MATERIALS FOR STRUCTURES AND RADIATION SHIELDING IN SPACE
 07/17/1996 – 07/31/1999 FY98: \$33,799 Total: \$123,759
Prin. Invest.: R L KIEFER, R A ORWOLL
Tech. Officer: LARC/S A THIBEAULT
CASE Category: 12 – CHEMISTRY

NCC 1 258 COLLEGE OF WILLIAM AND MARY **9444**
ROBUST ADAPTIVE DATA ENCODING AND RESTORATION
 05/22/1997 – 06/30/1999 FY98: \$138,043 Total: \$164,243
Prin. Invest.: S K PARK, Z RAHMAN
Tech. Officer: LARC/F O HUCK, LARC/D J JOBSON
CASE Category: 22 – COMPUTER SCIENCE

NCC 1 262 COLLEGE OF WILLIAM AND MARY **9445**
FLIGHT VALIDATION OF ATOMIC OXYGEN RESISTANT POLYMER
 07/21/1997 – 05/31/1999 FY98: \$6,500 Total: \$25,423
Prin. Invest.: R L KIEFER, R A ORWOLL
Tech. Officer: LARC/S A THIBEAULT
CASE Category: 12 – CHEMISTRY

NCC 1 272 COLLEGE OF WILLIAM AND MARY **9446**
FABRICATION OF HIGHLY REFLECTIVE AND ELECTRICALLY CONDUCTIVE SURFACE METALLIZED POLYMERIC FILMS FOR
 01/06/1998 – 01/05/1999 FY98: \$18,172 Total: \$18,172
Prin. Invest.: R A ORWOLL
Tech. Officer: LARC/A K ST. CLAIR
CASE Category: 12 – CHEMISTRY

NGT 70381 COLLEGE OF WILLIAM AND MARY **9447**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 08/31/1994 – 07/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: S PARK
Tech. Officer: HQ/D K RUSSELL
CASE Category: 22 – COMPUTER SCIENCE

NGT 1 52127 COLLEGE OF WILLIAM AND MARY **9448**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/22/1996 – 06/30/1999 FY98: \$22,000 Total: \$54,000
Prin. Invest.: P HINDERS
Tech. Officer: LARC/E I MADARAS
CASE Category: 13 – PHYSICS

NGT 1 52152 COLLEGE OF WILLIAM AND MARY **9449**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 10/30/1996 – 05/31/1997 FY98: -\$1 Total: \$13,364
Prin. Invest.: S FEYOCK
Tech. Officer: LARC/R HATHAWAY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52165 COLLEGE OF WILLIAM AND MARY **9450**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) TRANSFER FROM NASA HQ – NGT-332-251
 05/29/1997 – 06/30/1998 FY98: \$1 Total: \$21,201
Prin. Invest.: S PORK
Tech. Officer: LARC/J R SCHIESS
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52180 COLLEGE OF WILLIAM AND MARY **9451**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 01/12/1998 – 12/31/1998 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J S BOGHOSIAN
Tech. Officer: LARC/P H JOHNSTON
CASE Category: 13 – PHYSICS

NGT 1 52195 COLLEGE OF WILLIAM AND MARY **9452**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) YEAR ONE
 06/26/1998 – 06/30/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: A S MINER, G CIARDO
Tech. Officer: LARC/P W GOODE
CASE Category: 22 – COMPUTER SCIENCE

NGT 1 52200 COLLEGE OF WILLIAM AND MARY **9453**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 07/21/1998 – 08/31/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: R A ORWOLL
Tech. Officer: LARC/N J JOHNSTON, LARC/J A HINKLEY
CASE Category: 47 – METAL & MATERIALS ENGR

NGT 1 52203 COLLEGE OF WILLIAM AND MARY **9454**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/04/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M HINDERS
Tech. Officer: LARC/T L ST. CLAIR
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NGT 1 52204 COLLEGE OF WILLIAM AND MARY **9455**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/04/1998 – 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M HINDERS
Tech. Officer: LARC/T E PINELLI
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 5 70003 COLLEGE OF WILLIAM AND MARY **9456**
GRADUATE STUDENT RESEARCH PROGRAM – STUDENT: BEVE
 08/25/1997 – 10/02/1997 FY98: -\$21,200 Total: \$0
Prin. Invest.: S PARK
Tech. Officer: GSFC/M STOUTSENBERGER
CASE Category: 22 – COMPUTER SCIENCE

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| <p>NAG 1 1943 EMORY & HENRY COLLEGE 9457 HPLC CHARACTERIZATION OF PHENOL FORMALDEHYDE RESOLE RESIN USED IN FAB., OF SHUTTLE BOOSTER NOZ 06/05/1997 - 06/04/1999 FY98: \$0 Total: \$8,143 <i>Prin. Invest.:</i> P R YOUNG <i>Tech. Officer:</i> LARC/T L ST. CLAIR <i>CASE Category:</i> 12 - CHEMISTRY</p> | <p>NAG 5 370 GEORGE MASON UNIVERSITY 9465 MULTIFREQUENCY AND EUVE OBSERVATIONS OF THE UNUSUA BLAZAR MKN 421 01/24/1997 - 01/31/1998 FY98: \$0 Total: \$5,500 <i>Prin. Invest.:</i> M KAFATOS <i>Tech. Office:</i> GSFC/R J OLIVERSEN <i>CASE Category:</i> 11 - ASTRONOMY</p> |
| <p>NAG10 178 ESTRN VA MED SCHL-ESTRN VA MED AUTHORITY 9458 ROLE OF THYROXINE IN SPACE DEVELOPED JELLYFISH 09/11/1995 - 09/30/1998 FY98: \$0 Total: \$216,781 <i>Prin. Invest.:</i> D SPANGENBERG <i>Tech. Officer:</i> KSC/W M KNOTT <i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER</p> | <p>NAG 5 414 GEORGE MASON UNIVERSITY 9466 MULTISENSOR MAPPING OF AFRICAN SETTLEMENTS AND REF 04/12/1997 - 03/31/1999 FY98: \$30,215 Total: \$81,893 <i>Prin. Invest.:</i> B HAACK <i>Tech. Office:</i> GSFC/R H THOMAS <i>CASE Category:</i> 76 - SOCIOLOGY</p> |
| <p>NCC 1 310 ESTRN VA MED SCHL-ESTRN VA MED AUTHORITY 9459 STRESS COUNTER-RESPONSE TRAINING VIA PHYSIOLOGICAL SELF REGULATIONS DURING FLIGHT SIMULATION 07/29/1998 - 07/28/1999 FY98: \$20,762 Total: \$20,762 <i>Prin. Invest.:</i> O S PALSSON <i>Tech. Officer:</i> LARC/A T POPE, LARC/P C SCHUTTE <i>CASE Category:</i> 69 - PSYCHOLOGY, OTHER</p> | <p>NAG 5 472 GEORGE MASON UNIVERSITY 9467 SIMULATION STUDIES OF THE POLAR AURORA, PLASMA CON SYSTEMS USING ISTI-GGS DATA 06/27/1997 - 06/30/1999 FY98: \$80,000 Total: \$160,000 <i>Prin. Invest.:</i> D A FEDDER <i>Tech. Office:</i> GSFC/J GREBOWSKY <i>CASE Category:</i> 13 - PHYSICS</p> |
| <p>NAG 1 1929 GEORGE MASON UNIVERSITY 9460 NETWORK COMPUTING IN ENGINEERING DESIGN 05/29/1997 - 12/31/1998 FY98: \$89,575 Total: \$129,575 <i>Prin. Invest.:</i> T ARCISZEWSKI <i>Tech. Officer:</i> LARC/J J REHDER <i>CASE Category:</i> 22 - COMPUTER SCIENCE</p> | <p>NAG 5 4863 GEORGE MASON UNIVERSITY 9468 SOLVING COMBINATIONAL PROBLEMS ON LOOSELY COUPLED 06/26/1997 - 10/31/1998 FY98: \$0 Total: \$62,733 <i>Prin. Invest.:</i> P WANG <i>Tech. Office:</i> GSFC/W CAMPBELL <i>CASE Category:</i> 22 - COMPUTER SCIENCE</p> |
| <p>NAG 5 2652 GEORGE MASON UNIVERSITY 9461 HIGH PERFORMANCE COMPUTING RESEARCH 07/06/1994 - 10/14/1997 FY98: \$0 Total: \$1,159,656 <i>Prin. Invest.:</i> R LOHNER <i>Tech. Officer:</i> GSFC/J R FISCHER, GSFC/S T ZALESK <i>CASE Category:</i> 13 - PHYSICS</p> | <p>NAG 5 4965 GEORGE MASON UNIVERSITY 9469 ENERGY SPECTRA-FLUCTUATION SPECTRA CORRELATIONS IN OBJECTS 07/15/1997 - 06/30/1998 FY98: \$17,130 Total: \$27,130 <i>Prin. Invest.:</i> L TITARCHUK <i>Tech. Office:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY</p> |
| <p>NAG 5 3086 GEORGE MASON UNIVERSITY 9462 VIRTUAL DOMAIN APPLICATION USAGE OF EARTH OBSERVING DATA AND ECS PROTOTYPING 10/05/1995 - 12/31/1998 FY98: \$0 Total: \$337,090 <i>Prin. Invest.:</i> M KAFATOS <i>Tech. Officer:</i> GSFC/H RAMPRIYAN <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> | <p>NAG 5 6069 GEORGE MASON UNIVERSITY 9470 EVOLVING SCIENCE AND TECHNOLOGY POLICY: A SPACE SC 08/13/1997 - 01/31/1998 FY98: \$0 Total: \$95,000 <i>Prin. Invest.:</i> D F CIOFFI <i>Tech. Office:</i> GSFC/L J KALUZIENSKI <i>CASE Category:</i> 13 - PHYSICS</p> |
| <p>NAG 5 3139 GEORGE MASON UNIVERSITY 9463 A PROGRAM TO STUDY GALACTIC CENTER FOR HIGH-ENERGY GAMMA RAYS 10/31/1995 - 11/14/1996 FY98: -\$24 Total: \$10,826 <i>Prin. Invest.:</i> L OZERNOY, J R MATTOX <i>Tech. Officer:</i> GSFC/J P NORRIS, GSFC/J ORMES <i>CASE Category:</i> 11 - ASTRONOMY</p> | <p>NAG 5 7065 GEORGE MASON UNIVERSITY 9471 INTERPLANETARY DUST DISTRIBUTION AND THE DIRBE DATA 03/11/1998 - 03/14/1999 FY98: \$50,200 Total: \$50,200 <i>Prin. Invest.:</i> L OZERNOY <i>Tech. Office:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY</p> |
| <p>NAG 5 3387 GEORGE MASON UNIVERSITY 9464 MICROWAVE TARGET REFLECTION STUDY 09/05/1996 - 12/31/1996 FY98: -\$293 Total: \$5,630 <i>Prin. Invest.:</i> M KAFATOS <i>Tech. Officer:</i> GSFC/R SHAFER <i>CASE Category:</i> 11 - ASTRONOMY</p> | <p>NAG 5 737 GEORGE MASON UNIVERSITY 9472 A THEORETICAL AND OBSERVATIONAL STUDY OF EMISSION FROM BLACK HOLES AT X-RAYS AND GAMMA RAYS 04/30/1996 - 06/30/1999 FY98: \$35,000 Total: \$35,000 <i>Prin. Invest.:</i> L TITARCHUK <i>Tech. Office:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY</p> |

NCC 5 143 GEORGE MASON UNIVERSITY **9473**
EARTH SYSTEM SCIENCE DATA SUPPORT
 07/15/1996 – 06/14/1999 FY98: \$894,409 Total: \$1,880,313
Prin. Invest.: M KAFATOS
Tech. Officer: GSFC/P CHAN
CASE Category: 11 – ASTRONOMY

NCC 5 245 GEORGE MASON UNIVERSITY **9474**
DEVELOPMENT OF POSEIDON OCEAN MODEL FOR NSIPP
 10/08/1997 – 10/14/1999 FY98: \$144,440 Total: \$144,440
Prin. Invest.: P SCHOPF
Tech. Officer: GSFC/M RIENECKER
CASE Category: 33 – OCEANOGRAPHY

NCC 5 267 GEORGE MASON UNIVERSITY **9475**
TO SUPPORT THE FLAT-SAT VISION PROJECT
 01/28/1998 – 02/14/2001 FY98: \$80,000 Total: \$80,000
Prin. Invest.: H GOMAA
Tech. Officer: GSFC/T AMES
CASE Category: 22 – COMPUTER SCIENCE

NCC 5 306 GEORGE MASON UNIVERSITY **9476**
SEASONAL & INTERANNUAL EARTH SCIENCE INFORMANTION PARTNER (SIESIP)
 04/09/1998 – 02/28/2001 FY98: \$500,000 Total: \$500,000
Prin. Invest.: M KAFATOS
Tech. Officer: GSFC/M MAIDEN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 5 360 GEORGE MASON UNIVERSITY **9477**
CONTINUING CAREER PROGRAM (CCP)
 08/26/1998 – 08/31/2001 FY98: \$386,008 Total: \$386,008
Prin. Invest.: R R STOUGH
Tech. Officer: GSFC/A E TAYLOR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 30330 GEORGE MASON UNIVERSITY **9478**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/12/1995 – 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: M KUFATOS
Tech. Officer: HQ/A J TUYAHOV, HQ/G ASRAR
CASE Category: 29 – MATH/COMPUTER SCI, OTHER

NGT 5 30101 GEORGE MASON UNIVERSITY **9479**
THIRD YEAR FUNDING: AN ARCHITECTURAL STUDY OF EOS INTER-FACE/N. NADA
 09/15/1997 – 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D RINE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 5 93 HAMPDEN-SYDNEY COLLEGE **9480**
ANALYSIS OF DATA FROM THE ENERGETIC GAMMA-RAY EXPERIMENT TELESCOPE ON THE COMPTON GAMMA-RAYOBS.
 07/03/1995 – 08/14/1997 FY98: \$0 Total: \$120,798
Prin. Invest.: D A KNIFFEN
Tech. Officer: GSFC/C E FICHEL
CASE Category: 11 – ASTRONOMY

NAG 1 1168 HAMPTON UNIVERSITY **9481**
INVESTIGATION OF POLYMER LIQUID CRYSTAL
 08/24/1990 – 09/30/1996 FY98: -\$1,714 Total: \$500,873
Prin. Invest.: K S HAN, A EFTEKHARI
Tech. Officer: LARC/J J SINGH, LARC/D R SPRINKLE
CASE Category: 13 – PHYSICS

NAG 1 1185 HAMPTON UNIVERSITY **9482**
THE AMERICAN INDIAN EDUCATION OPPORTUNITIES PROGRAM
 09/13/1990 – 09/30/1998 FY98: \$0 Total: \$630,591
Prin. Invest.: P F MOLIN, D D VENABLE
Tech. Officer: LARC/S E MASSENBERG
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 1 1636 HAMPTON UNIVERSITY **9483**
INVESTIGATION OF NOX REMOVAL FROM SMALL ENGINE EXHAUST
 08/03/1994 – 07/31/1999 FY98: \$0 Total: \$221,255
Prin. Invest.: J F AKYURTLU
Tech. Officer: LARC/G B NORTHAM
CASE Category: 43 – CHEMICAL ENGR

NAG 1 1742 HAMPTON UNIVERSITY **9484**
ELECTORRHEOLOGICAL FLUIDS – AEROSPACE APPLICATIONS NLPN 95-104
 07/31/1995 – 01/31/1999 FY98: \$125,086 Total: \$308,314
Prin. Invest.: A C SMITH, D S PARMAR
Tech. Officer: LARC/G T KIMBERLY, LARC/H K HOLMES
CASE Category: 13 – PHYSICS

NAG 1 1765 HAMPTON UNIVERSITY **9485**
DEVELOPMENT OF LASER MATERIALS FOR LIDAR SYSTEMS
 10/20/1995 – 10/19/1997 FY98: \$0 Total: \$239,592
Prin. Invest.: D A TEMPLE, S C MATHAR, D LYONS
Tech. Officer: LARC/J C BARNES, LARC/N P BARNES
CASE Category: 49 – ENGINEERING, OTHER

NAG 1 1789 HAMPTON UNIVERSITY **9486**
NEW NASA RESEARCH GRANT
 01/31/1996 – 08/30/1997 FY98: \$1 Total: \$92,185
Prin. Invest.: K MAUNG
Tech. Officer: LARC/MAUNG
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1834 HAMPTON UNIVERSITY **9487**
HAMPTON UNIVERSITY AEROSCIENCE CENTER
 05/03/1996 – 05/31/1999 FY98: \$300,000 Total: \$1,000,000
Prin. Invest.: C REAVES
Tech. Officer: LARC/S E MASSENBERG
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1835 HAMPTON UNIVERSITY **9488**
START UP RESEARCH EFFORT IN FLUID MECHANICS MY 1/3
 05/02/1996 – 05/31/1999 FY98: \$50,000 Total: \$225,000
Prin. Invest.: S WHITE, A G MIAMRE
Tech. Officer: LARC/J M SEINER, LARC/J C HARDIN
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1902 HAMPTON UNIVERSITY **9489**
LANGLEY AEROSCIENCE RESEARCH SUMMER SCHOLARS PROGRAM
 02/14/1997 – 05/30/1998 FY98: \$0 Total: \$690,100
Prin. Invest.: C W LOWE
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

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| <p>NAG 1 1936 HAMPTON UNIVERSITY 9490 MIXING, NOISE, AND THRUST BENEFITS USING CORRU-GATED DESIGNS 05/27/1997 - 05/31/1999 FY98: \$120,000 Total: \$300,000 <i>Prin. Invest.:</i> S G WHITE, JR., M M GILINSKY, NONE <i>Tech. Officer:</i> LARC/J M SEINER, LARC/M K PONTON CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NAG 3 203: HAMPTON UNIVERSITY 9498 NEW HARCWARE FOR LASER & SURFACE LIGHT SCATTERING SUPPLEMENTAL FIBER OPTIC DEVICES 04/09/1997 - 09/15/1997 FY98: \$0 Total: \$25,000 <i>Prin. Invest.:</i> D R LYONS, H HELMKEN <i>Tech. Officer:</i> LERC/M B MEYER CASE Category: 13 - PHYSICS</p> |
| <p>NAG 1 1941 HAMPTON UNIVERSITY 9491 CHARACTERIZATION OF MOLECULAR INTERACTIONS AT METAL/POLYMER COMPOSITE SURFACES AND INTERPHASES 05/30/1997 - 05/31/1999 FY98: \$50,000 Total: \$150,000 <i>Prin. Invest.:</i> J C WILLIAMS <i>Tech. Officer:</i> LARC/T L ST. CLAIR, LARC/S H LOWTHER CASE Category: 12 - CHEMISTRY</p> | <p>NAG 3 2034 HAMPTON UNIVERSITY 9499 HIGH TEMPERATURE FIBER OPTICS SENSOR SYSTEM FOR PLUME IMPINGEMENT STUDIES 04/09/1997 - 12/03/1998 FY98: \$42,000 Total: \$82,001 <i>Prin. Invest.:</i> J R LYONS <i>Tech. Officer:</i> LERC/S R BULLOCK CASE Category: 13 - PHYSICS</p> |
| <p>NAG 1 1947 HAMPTON UNIVERSITY 9492 CONCEPTS FOR ATMOSPHERIC SCIENCE EDUCATION (CASE) 06/17/1997 - 06/30/1999 FY98: \$75,648 Total: \$256,043 <i>Prin. Invest.:</i> M P MCCORMICK, J M RUSSELL, III <i>Tech. Officer:</i> LARC/L R POOLE CASE Category: 31 - ATMOSPHERIC SCIENCE</p> | <p>NAG 3 2059 HAMPTON UNIVERSITY 9500 OPTICAL STRAIN GAUGES FOR PLUME IMPINGEMENT STUDIES 07/10/1997 - 06/24/1999 FY98: \$148,937 Total: \$348,128 <i>Prin. Invest.:</i> J R LYONS <i>Tech. Officer:</i> LERC/E J PENCIL CASE Category: 13 - PHYSICS</p> |
| <p>NAG 1 1949 HAMPTON UNIVERSITY 9493 DEVELOPMENT OF A PORTABLE, GROUND BASED OZONE LIDAR INSTRUMENT FOR TROPOSPHERIC OZONE 06/20/1997 - 06/30/1999 FY98: \$90,000 Total: \$270,000 <i>Prin. Invest.:</i> T H CHYBA, T ZENKER <i>Tech. Officer:</i> LARC/J FISHMAN CASE Category: 31 - ATMOSPHERIC SCIENCE</p> | <p>NAG 3 2189 HAMPTON UNIVERSITY 9501 OPTICAL ELECTRONIC BRAGG REFLECTION SENSOR SYSTEM WITH HYDRODYNAMIC FLOW APPLICATIONS 08/07/1998 - 05/30/2002 FY98: \$94,279 Total: \$94,279 <i>Prin. Invest.:</i> J R LYONS <i>Tech. Officer:</i> LERC/D GRIFFIN CASE Category: 49 - ENGINEERING, OTHER</p> |
| <p>NAG 1 1963 HAMPTON UNIVERSITY 9494 INVESTIGATIONS OF TROPICAL ATMOSPHERIC RADIATIVE ENERGY BALANCE USING CERS AND TRMM DATA 09/03/1997 - 09/30/2000 FY98: \$248,367 Total: \$338,367 <i>Prin. Invest.:</i> B LIN <i>Tech. Officer:</i> LARC/B A WIENCKI CASE Category: 31 - ATMOSPHERIC SCIENCE</p> | <p>NAG 4 12 HAMPTON UNIVERSITY 9502 DEVELOPMENT OF ULTRASONIC & FABRY-PEROT INTERFEROMETER SYSTEM FOR AGING AIRCRAFT STRUCTURES 12/13/1994 - 12/31/1997 FY98: \$0 Total: \$200,068 <i>Prin. Invest.:</i> A SMITH, M N ABEDIN <i>Tech. Officer:</i> DFRC/K GUPTA, DFRC/E J COX CASE Category: 41 - AERONAUTICAL ENGR</p> |
| <p>NAG 1 2017 HAMPTON UNIVERSITY 9495 1998 LANGLEY AEROSPACE RESEARCH SUMMER SCHOLARS PROGRAM (LARSS) 03/03/1998 - 03/02/1999 FY98: \$574,042 Total: \$574,042 <i>Prin. Invest.:</i> C W LOWE <i>Tech. Officer:</i> LARC/R A HATHAWAY CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NAG 4 147 HAMPTON UNIVERSITY 9503 EVALUATION OF STRUCTURAL ADHESIVE BONDS USING FIBER OPTIC METHODS 02/26/1998 - 12/27/1999 FY98: \$50,000 Total: \$50,000 <i>Prin. Invest.:</i> A SMITH <i>Tech. Officer:</i> DFRC/E COX, DFRC/K K GUPTA CASE Category: 41 - AERONAUTICAL ENGR</p> |
| <p>NAG 3 1720 HAMPTON UNIVERSITY 9496 DISTRIBUTED BRAGG REGION SENSORS WITH AEROSPACE APPLICATIONS 02/28/1995 - 02/27/1998 FY98: \$0 Total: \$225,000 <i>Prin. Invest.:</i> R LYONS <i>Tech. Officer:</i> LERC/G ADAMOVSKY CASE Category: 13 - PHYSICS</p> | <p>NAG 5 6296 HAMPTON UNIVERSITY 9504 HAMPTON UNIVERSITY - OPTICAL RADIATION IN ATMOSPHERE 09/19/1997 - 03/31/1998 FY98: \$0 Total: \$74,988 <i>Prin. Invest.:</i> D A TEMPLE <i>Tech. Officer:</i> C SFC/N KHAZENIE CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p> |
| <p>NAG 3 1792 HAMPTON UNIVERSITY 9497 PARALLELIZATION OF ROCKET ENGINE SIMULATOR SOFTWARE 10/19/1995 - 10/18/1999 FY98: \$93,095 Total: \$293,050 <i>Prin. Invest.:</i> D CEZZAR <i>Tech. Officer:</i> LERC/D N NOGA, LERC/K J DAVIDIAN CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NAG 5 6938 HAMPTON UNIVERSITY 9505 MATHEMATICS, SCIENCE, ENGINEERING AND TECHNOLOGY PROGRAM 02/06/1998 - 03/31/1999 FY98: \$100,000 Total: \$100,000 <i>Prin. Invest.:</i> M MORGAN <i>Tech. Officer:</i> GSFC/M STOUTSENBERGER CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p> |

NAG 5 7001 HAMPTON UNIVERSITY **9506**
STUDIES OF THE CLIMATOLOGY, LONG-TERM TRENDS, AND QUASI-BIENNIAL OSCILLATION OF CHEMICAL TRACERS IN
 04/07/1998 – 03/31/1999 FY98: \$51,587 Total: \$51,587
Prin. Invest.: D M RUSSELL,111
Tech. Officer: GSFC/C JACKMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 8 1340 HAMPTON UNIVERSITY **9507**
FOR RESEARCH "FIBER OPTIC SENSOR COMPONENT AND SYS FOR SMART MATERIALS & STRUCTURES UNDER THE DIR..."
 04/17/1997 – 04/16/1999 FY98: \$100,000 Total: \$200,000
Prin. Invest.: D R LYONS
Tech. Officer: MSFC/S NASH-STEVENSON, MSFC/A C BEAN
CASE Category: 49 – ENGINEERING, OTHER

NAGW 2929 HAMPTON UNIVERSITY **9508**
THE RESEARCH CENTER FOR OPTICAL PHYSICS
 02/19/1992 – 12/31/1997 FY98: \$0 Total: \$7,555,330
Prin. Invest.: D TEMPLE
Tech. Officer: HQ/B L WHITE, HQ/P SAKIMOTO
CASE Category: 13 – PHYSICS

NAGW 5171 HAMPTON UNIVERSITY **9509**
PACE/MSET PROGRAM
 10/25/1996 – 12/31/1997 FY98: \$0 Total: \$100,000
Prin. Invest.: A OLADIPUPO
Tech. Officer: HQ/B WHITE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG13 44 HAMPTON UNIVERSITY **9510**
INFORMATION CONTENT IMPROVEMENT BY HYPER SPECTRAL IMAGER
 08/01/1995 – 01/09/1999 FY98: \$149,796 Total: \$287,756
Prin. Invest.: B A ADESENYA
Tech. Officer: SSC/A JOYCE
CASE Category: 33 – OCEANOGRAPHY

NAS 1 19935 HAMPTON UNIVERSITY **9511**
RESEARCH IN AIRWAY SCI, ARCH, & PHYS
 01/29/1993 – 01/28/1999 FY98: \$25,000 Total: \$3,681,475
Prin. Invest.: N
Tech. Officer: LARC/RL YANG, LARC/E J PRIOR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAS 1 20444 HAMPTON UNIVERSITY **9512**
EDUCATIONAL OUTREACH FOR NASA SCIENCES AND APPLICATIONS
 12/19/1994 – 12/19/1998 FY98: \$750,000 Total: \$3,086,396
Prin. Invest.: W TINSLEY
Tech. Officer: LARC/L B GARRETT
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAS 1 97042 HAMPTON UNIVERSITY **9513**
PRINCIPAL INVESTIGATOR SERVICES TO SUPPORT SAGE II AND III, SABER, HALOE, LITE AND LIDAR PROGRAMS.
 09/29/1997 – 09/30/2002 FY98: \$273,433 Total: \$318,433
Prin. Invest.: P MCCORMICK
Tech. Officer: LARC/R L DUNCAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 1 214 HAMPTON UNIVERSITY **9514**
INTERPRETATION OF LIDAR AND SATELLITE DATA SETS USING A GLOBAL PHOTOCHEMICAL MODEL
 06/29/1995 – 06/30/1998 FY98: \$2,680 Total: \$225,073
Prin. Invest.: T ZENKER
Tech. Officer: LARC/J FISHMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 1 215 HAMPTON UNIVERSITY **9515**
LASER RESEARCH FOR TROPOSPHERIC WATER VAPOR MEASUREMENTS
 08/15/1995 – 08/14/1998 FY98: \$0 Total: \$83,093
Prin. Invest.: T H CHYBA
Tech. Officer: LARC/E J CONWAY, LARC/N S HIGDON
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 1 231 HAMPTON UNIVERSITY **9516**
ADVANCED ELECTROMAGNETIC INTERFERENCE AND RADIATION RESEARCH
 06/13/1996 – 08/04/1999 FY98: \$111,967 Total: \$256,054
Prin. Invest.: A O OLADIPUPO, C J REDDY
Tech. Officer: LARC/F D BECK, LARC/C R COCKRELL
CASE Category: 45 – ELECTRICAL ENGR

NCC 1 242 HAMPTON UNIVERSITY **9517**
RADIATION TRANSPORT AND SHIELDING FOR SPACE EXPLORATION AND HIGH-SPEED FLIGHT TRANSPORTATION
 08/19/1996 – 12/31/1998 FY98: \$94,015 Total: \$226,015
Prin. Invest.: K M MAUNG
Tech. Officer: LARC/R C SINGLETERRY, LARC/J W WILSON
CASE Category: 13 – PHYSICS

NCC 1 251 HAMPTON UNIVERSITY **9518**
RESEARCH CENTER FOR OPTICAL PHYSICS MY 1/5
 03/18/1997 – 12/31/1998 FY98: \$1,000,000 Total: \$2,000,000
Prin. Invest.: D A TEMPLE
Tech. Officer: LARC/R HATHAWAY
CASE Category: 13 – PHYSICS

NCC 1 319 HAMPTON UNIVERSITY **9519**
IN-SITU OZONE (DC-8 & P-3B A/C) & FINE AEROSOL MEAS (DC-8 A/C) SUPPORT GLOBAL TROPOSPHERIC EXPERIMENT
 09/09/1998 – 12/31/1999 FY98: \$22,397 Total: \$22,397
Prin. Invest.: M OWENS
Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 5 348 HAMPTON UNIVERSITY **9520**
CENTER FOR LIDAR AND ATMOSPHERIC SCIENCES STUDENTS
 06/29/1998 – 06/30/2003 FY98: \$499,555 Total: \$499,555
Prin. Invest.: D A TEMPLE
Tech. Officer: HQ/B WHITE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52122 HAMPTON UNIVERSITY **9521**
NASA-ASEE SUMMER FACULTY FELLOWSHIP PROGRAM FORMALLY NASA HEADQUARTERS NGT-47-020-800
 05/06/1996 – 04/02/1998 FY98: -\$39,313 Total: \$566,687
Prin. Invest.: D SPENCER
Tech. Officer: LARC/R HATHAWAY, LARC/E PRIOR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

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|-----------------------------------------------------------------------------------------------------------------|--------------------------|--------------------|
| NGT 1 52148 | HAMPTON UNIVERSITY | 9522 |
| GRADUATE STUDENT RESEARCH PROGRAM (GSRP) | | |
| 07/26/1996 – 05/31/1998 | FY98: \$1 | Total: \$22,001 |
| <i>Prin. Invest.:</i> L J MORELL, C S GAYLE | | |
| <i>Tech. Officer:</i> LARC/J W WILSON | | |
| <i>CASE Category:</i> 13 – PHYSICS | | |
| NGT 1 52181 | HAMPTON UNIVERSITY | 9523 |
| 1998 NASA ASEE SUMMER FACULTY RESEARCH PROGRAM | | |
| 03/03/1998 – 12/31/1998 | FY98: \$573,000 | Total: \$573,000 |
| <i>Prin. Invest.:</i> W P MARABLE | | |
| <i>Tech. Officer:</i> LARC/R HATHAWAY, LARC/E PRIOR | | |
| <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | | |
| NAG 1 1802 | JAMES MADISON UNIVERSITY | 9524 |
| LARGE EDDY SIMULATION OF A SUBSONIC AXISYMMETRIC JET | | |
| 02/01/1996 – 10/04/1997 | FY98: \$0 | Total: \$51,781 |
| <i>Prin. Invest.:</i> C D PRUETT | | |
| <i>Tech. Officer:</i> LARC/K R MEADOWS | | |
| <i>CASE Category:</i> 21 – MATHEMATICS | | |
| NAG 1 1910 | JAMES MADISON UNIVERSITY | 9525 |
| THERMAL STRUCTURE AND MATERIALS TESTING LABORATORY (T-SAMTL) | | |
| 03/18/1997 – 03/31/1998 | FY98: \$24,642 | Total: \$99,642 |
| <i>Prin. Invest.:</i> A A TEATE | | |
| <i>Tech. Officer:</i> LARC/A TEATE | | |
| <i>CASE Category:</i> 47 – METAL & MATERIALS ENGR | | |
| NAG 1 2033 | JAMES MADISON UNIVERSITY | 9526 |
| LARGE-EDDY SIMULATION FOR AEROACOUSTICS APPLICATIONS | | |
| 03/17/1998 – 04/05/1999 | FY98: \$26,360 | Total: \$26,360 |
| <i>Prin. Invest.:</i> C D PRUETT, J S SOCHACKI | | |
| <i>Tech. Officer:</i> LARC/M H CARPENTER | | |
| <i>CASE Category:</i> 21 – MATHEMATICS | | |
| NAG 5 6166 | JAMES MADISON UNIVERSITY | 9527 |
| COLLEGE OF INTEGRATED SCIENCE & TECHNOLOGY (CISAT) CONDUCT PRE-SERVICE TEACHER ENHANCEMENT WORKSHOP. | | |
| 08/01/1997 – 07/31/1999 | FY98: \$20,000 | Total: \$40,000 |
| <i>Prin. Invest.:</i> J BARNES | | |
| <i>Tech. Officer:</i> GSFC/N KHAZENIE | | |
| <i>CASE Category:</i> 39 – ENVIRONMENTAL SCI, OTHER | | |
| NCC 1 267 | JAMES MADISON UNIVERSITY | 9528 |
| CHARACTERIZATION OF INFRARED DIODE LASER BEAMS AND ATMOSPHERIC CO IMAGING INSTRUMENT | | |
| 11/19/1997 – 10/15/1998 | FY98: \$34,600 | Total: \$34,600 |
| <i>Prin. Invest.:</i> J J MILES | | |
| <i>Tech. Officer:</i> LARC/G W SACHSE | | |
| <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE | | |
| NAG 1 1836 | LONGWOOD COLLEGE | 9529 |
| DEV OF IMPROVED ANALYTICAL METHODS FOR THE ANALYSIS OF BRIDG-MAN GROWN SEMICONDUCTOR | | |
| 05/20/1996 – 08/19/1998 | FY98: \$0 | Total: \$85,139 |
| <i>Prin. Invest.:</i> P BARBER | | |
| <i>Tech. Officer:</i> LARC/A L FRIPP | | |
| <i>CASE Category:</i> 19 – PHYSICAL SCIENCE, OTHER | | |
| NAG 1 1432 | NORFOLK STATE UNIVERSITY | 9530 |
| DEVELOPMENT OF LABORATORY EXPERIMENTS FOR ENGINEERING MATERIALS, SCIENCE, AND TECHNOLOGY | | |
| 04/23/1992 – 03/31/1998 | FY98: \$35,001 | Total: \$164,496 |
| <i>Prin. Invest.:</i> J A JACOBS | | |
| <i>Tech. Officer:</i> LARC/J E GARDNER, LARC/R L YANG | | |
| <i>CASE Category:</i> 49 – ENGINEERING, OTHER | | |
| NAG 1 1453 | NORFOLK STATE UNIVERSITY | 9531 |
| THE GROWTH, SYNTHESIS, AND SPECTROSCOPIC CHARACTERIZATION OF MATERIALS – NLPN 92-207R | | |
| 09/11/1992 – 09/30/1998 | FY98: \$40,000 | Total: \$1,284,976 |
| <i>Prin. Invest.:</i> L MATTIX, H R RIES | | |
| <i>Tech. Officer:</i> LARC/P R YOUNG, LARC/N BARNES | | |
| <i>CASE Category:</i> 12 – CHEMISTRY | | |
| NAG 1 1705 | NORFOLK STATE UNIVERSITY | 9532 |
| PRE-SERVICE TEACHER CONFERENCE | | |
| 03/27/1995 – 03/31/1998 | FY98: \$0 | Total: \$394,509 |
| <i>Prin. Invest.:</i> E WITTY | | |
| <i>Tech. Officer:</i> LARC/R HATHAWAY, LARC/E PRIOR | | |
| <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | | |
| NAG 1 1937 | NORFOLK STATE UNIVERSITY | 9533 |
| THE SCIENCE AND MATH FOR EVERYONE PROJECT MY 1/2 | | |
| 05/28/1997 – 03/31/1999 | FY98: \$90,000 | Total: \$270,000 |
| <i>Prin. Invest.:</i> M NEWSOME | | |
| <i>Tech. Officer:</i> LARC/M CANRIGHT, LARC/E PRIOR | | |
| <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | | |
| NAG 1 1944 | NORFOLK STATE UNIVERSITY | 9534 |
| VISUALIZATION OF ATMOSPHERIC WATER VAPOR DATA FOR SAGE | | |
| 06/09/1997 – 03/08/1999 | FY98: \$48,601 | Total: \$145,813 |
| <i>Prin. Invest.:</i> W J RODRIGUEZ | | |
| <i>Tech. Officer:</i> LARC/W P CHU | | |
| <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE | | |
| NAG 1 1948 | NORFOLK STATE UNIVERSITY | 9535 |
| RURAL OUTREACH PROGRAM | | |
| 06/19/1997 – 03/30/1999 | FY98: \$75,000 | Total: \$255,000 |
| <i>Prin. Invest.:</i> C COLEMAN | | |
| <i>Tech. Officer:</i> LARC/S CANRIGHT, LARC/E PRIOR | | |
| <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | | |
| NAG 1 1967 | NORFOLK STATE UNIVERSITY | 9536 |
| NASA SDB DATA BASE DEVELOPMENT | | |
| 05/01/1997 – 03/30/1998 | FY98: \$0 | Total: \$41,000 |
| <i>Prin. Invest.:</i> J LLOYD | | |
| <i>Tech. Officer:</i> LARC/R HATHAWAY | | |
| <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | | |
| NAG 1 2066 | NORFOLK STATE UNIVERSITY | 9537 |
| PRE-SERVICE TEACHER EDUCATION CONFERENCE | | |
| 05/01/1998 – 05/31/1999 | FY98: \$200,034 | Total: \$200,034 |
| <i>Prin. Invest.:</i> E P WITTY | | |
| <i>Tech. Officer:</i> LARC/R HATHAWAY, LARC/E PRIOR | | |
| <i>CASE Category:</i> 99 – MULTI INTERDISCIPL, OTHER | | |

NAG 1 2098 NORFOLK STATE UNIVERSITY **9538**
PROVIDING A CONTINUUM OF SUPPORT FOR MINORITY STUDENTS AND
TEACHERS IN HAMPTON ROADS, VA
 07/29/1998 - 04/30/1999 FY98: \$96,000 Total: \$96,000
Prin. Invest.: C COLEMAN
Tech. Officer: LARC/M D CANRIGHT, LARC/E PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 1371 NORFOLK STATE UNIVERSITY **9539**
AN NMR STUDY OF MICROVOIDS WATER-SOAKED EPOXY POLY MERS
 10/01/1992 - 11/07/1996 FY98: -\$1,367 Total: \$272,080
Prin. Invest.: L MATTIX
Tech. Officer: LERC/M A MEADOR
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 4962 NORFOLK STATE UNIVERSITY **9540**
SUMMER WORKSHOP PROG. TO PROVIDE EMERGING EDUCATOR &
KNOWLEDGE TO UTILIZE IN CLASSROOM CURR. MATERIA
 06/25/1997 - 06/30/1998 FY98: \$0 Total: \$19,650
Prin. Invest.: S CHAUNDHARY
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6298 NORFOLK STATE UNIVERSITY **9541**
NORFOLK STATE UNIVERSITY RESEARCH EXPERIENCE IN EA
 09/15/1997 - 08/31/1998 FY98: \$0 Total: \$78,409
Prin. Invest.: W J RODRIGUEZ
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 1 200 NORFOLK STATE UNIVERSITY **9542**
COOPERATIVE PROGRAM FOR RESEARCH AND CURRICULUM DEVELOP-
MENT IN EARTH SYSTEM SCIENCE - MY1/3
 09/27/1994 - 04/30/1998 FY98: \$890 Total: \$715,813
Prin. Invest.: S R CHAUDURY, T MARSHALL-BRADLEY
Tech. Officer: LARC/R HATHAWAY, LARC/E PRIOR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 1 280 NORFOLK STATE UNIVERSITY **9543**
FEASIBILITY STUDY OF PIEZOELECTRIC ACTUATORS DRIVE N BY A
MICROWAVE
 03/06/1998 - 03/05/1999 FY98: \$100,000 Total: \$100,000
Prin. Invest.: K D SONG
Tech. Officer: LARC/S H CHOI
CASE Category: 46 - MECHANICAL ENGR

NCC 1 295 NORFOLK STATE UNIVERSITY **9544**
1998-SUMMER PRE-SERVICE TEACHER ENHANCEMENT INSTITUTE
 04/27/1998 - 11/30/1998 FY98: \$242,000 Total: \$242,000
Prin. Invest.: E WITTY
Tech. Officer: LARC/R HATHAWAY, LARC/E PRIOR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 90160 NORFOLK STATE UNIVERSITY **9545**
EXPANDING CHROME CLUBS
 05/05/1993 - 08/31/1997 FY98: \$0 Total: \$335,436
Prin. Invest.: K C HARVEY
Tech. Officer: HQ/B WHITE
CASE Category: 49 - ENGINEERING, OTHER

NGT 1 52175 NORFOLK STATE UNIVERSITY **9546**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 09/03/1997 - 09/02/1998 FY98: \$1 Total: \$22,001
Prin. Invest.: H R RIES
Tech. Officer: LARC/J O SIMPSON, LARC/J A HINKLEY
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 439 OLD DOMINION UNIVERSITY **9547**
POTENTIAL USE OF AUTOMATIC PROGRAMMING TECHNOLOGY IN THE
PRODUCTION OF ULTRA-RELIABLE COMPUTING SYST
 01/10/1984 - 06/30/1997 FY98: \$0 Total: \$955,026
Prin. Invest.: C D WILD, S ZEIL
Tech. Officer: LARC/D E ECKHARDT
CASE Category: 22 - COMPUTER SCIENCE

NAG 1 648 OLD DOMINION UNIVERSITY **9548**
UNSTEADY HYBRID VORTEX TECHNIQUE FOR TRANSONIC VOR TEX
FLOWS AND FLUTTER APPLICATIONS
 02/20/1986 - 11/30/1998 FY98: \$35,000 Total: \$663,349
Prin. Invest.: O A KANDIL
Tech. Officer: LARC/J B MALONE, LARC/W WHITLOW
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 858 OLD DOMINION UNIVERSITY **9549**
PARALLEL PROCEDURES FOR STATICS, EIGENVALUE ANALYS IS AND
STRUCTURAL DYNAMICS
 02/24/1988 - 06/30/1998 FY98: \$0 Total: \$491,474
Prin. Invest.: D T NGUYEN
Tech. Officer: LARC/O O STORAASLI, LARC/S BOSTIC
CASE Category: 46 - MECHANICAL ENGR

NAG 1 908 OLD DOMINION UNIVERSITY **9550**
EXTREMELY HIGH DATA-RATE, RELIABLE NETWORK SYSTEMS
RESEARCH
 09/02/1988 - 08/15/1998 FY98: \$12,230 Total: \$171,565
Prin. Invest.: K MALY
Tech. Officer: LARC/N D MURRAY/W H BRYANT
CASE Category: 22 - COMPUTER SCIENCE

NAG 1 1056 OLD DOMINION UNIVERSITY **9551**
LARGE ANGLE MAGNETIC SUSPENSION TEST FIXTURE
 08/29/1989 - 10/31/1996 FY98: -\$9,162 Total: \$407,652
Prin. Invest.: C P BRITCHER
Tech. Officer: LARC/N J GROOM
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 1114 OLD DOMINION UNIVERSITY **9552**
BUILDING A GENERALIZED DISTRIBUTED SYSTEM MODEL
 03/15/1990 - 07/31/1997 FY98: \$0 Total: \$78,341
Prin. Invest.: R MUKKAMALA, E FOUDEIAT
Tech. Officer: LARC/W H BRYANT
CASE Category: 22 - COMPUTER SCIENCE

NAG 1 1140 OLD DOMINION UNIVERSITY **9553**
AN INVESTIGATION OF GLOW DISCHARGE MEMBRANE SEPERATION OF
OXYGEN FROM MARS ATMOSPHERE
 05/07/1990 - 12/31/1997 FY98: -\$1 Total: \$270,384
Prin. Invest.: R L ASH
Tech. Officer: LERC/R A OUTLAW, LERC/J H LEE
CASE Category: 47 - METAL & MATERIALS ENGR

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| <p>NAG 1 1426 OLD DOMINION UNIVERSITY 9554 DEVELOPMENT OF A CASE TOOL TO SUPPORT DECISION BASED SOFTWARE DEVELOPMENT 04/13/1992 – 12/31/1996 FY98: -\$1 Total: \$46,476 <i>Prin. Invest.:</i> C WILD <i>Tech. Officer:</i> LARC/D E ECKHARDT <i>CASE Category:</i> 22 – COMPUTER SCIENCE</p> | <p>NAG 1 1684 OLD DOMINION UNIVERSITY 9561 EXPERIMENTAL AND NUMERICAL ANALYSES OF STRUCTURAL ACOUSTIC CONTROL FOR INTERIOR NOISE REDUCTION 01/10/1995 – 01/09/1999 FY98: \$67,000 Total: \$301,782 <i>Prin. Invest.:</i> C MEI <i>Tech. Officer:</i> LARC/T L TURNER, LARC/K P SHEPHERD <i>CASE Category:</i> 41 – AERONAUTICAL ENGR</p> |
| <p>NAG 1 1437 OLD DOMINION UNIVERSITY 9555 IMPROVED TECHNIQUES FOR VORTEX HAZARD PREDICTION NEAR AIRPORTS 04/28/1992 – 10/31/1996 FY98: -\$3 Total: \$389,875 <i>Prin. Invest.:</i> R L ASH <i>Tech. Officer:</i> LARC/G C GREENE, LARC/D D VICROY <i>CASE Category:</i> 13 – PHYSICS</p> | <p>NAG 1 1692 OLD DOMINION UNIVERSITY 9562 PARALLEL IMPLICIT ALGORITHMS FOR CFD 02/23/1995 – 09/30/1998 FY98: \$12,501 Total: \$150,001 <i>Prin. Invest.:</i> D E KEYES <i>Tech. Officer:</i> LARC/N D MELSON, LARC/J L THOMAS <i>CASE Category:</i> 29 – MATH/COMPUTER SCI, OTHER</p> |
| <p>NAG 1 1550 OLD DOMINION UNIVERSITY 9556 A PARALLEL AND DISTRIBUTED COMPUTING ENVIRONMENT FOR SCIENTIFIC APPLICATIONS 11/17/1993 – 08/15/1997 FY98: -\$4 Total: \$207,493 <i>Prin. Invest.:</i> K MALY, M ZUBAIR, C M OVERSTREET <i>Tech. Officer:</i> LARC/M D SALAS <i>CASE Category:</i> 22 – COMPUTER SCIENCE</p> | <p>NAG 1 1745 OLD DOMINION UNIVERSITY 9563 A PROPOSAL FOR BENCHMARKING THE FUTURE AUTOMATED AIR TRAFFIC MANAGEMENT (NLPN 95-625) 08/15/1995 – 12/31/1997 FY98: -\$9,044 Total: \$33,225 <i>Prin. Invest.:</i> D MALY <i>Tech. Officer:</i> LARC/W H BRYANT <i>CASE Category:</i> 22 – COMPUTER SCIENCE</p> |
| <p>NAG 1 1578 OLD DOMINION UNIVERSITY 9557 DEVELOPMENT OF A TIAL203 LASER FOR REMOTE SENSING OF THE ATMOSPHERE NLPN 93-1104 12/16/1993 – 12/31/1997 FY98: \$0 Total: \$103,907 <i>Prin. Invest.:</i> H ELSAYED-ALI, W SITU <i>Tech. Officer:</i> LARC/E V BROWELL, LARC/A F CARTER <i>CASE Category:</i> 13 – PHYSICS</p> | <p>NAG 1 1853 OLD DOMINION UNIVERSITY 9564 PERFORMANCE EVALUATION OF DATA LINK ARCHITECTURES FOR LVASO 07/01/1996 – 01/30/1998 FY98: \$10,464 Total: \$40,465 <i>Prin. Invest.:</i> D MUKKAMALA <i>Tech. Officer:</i> LARC/R W WILLS <i>CASE Category:</i> 22 – COMPUTER SCIENCE</p> |
| <p>NAG 1 1588 OLD DOMINION UNIVERSITY 9558 ANALYSIS AND DESIGN OF FUSELAGE STRUCTURES INCLUDING RESIDUAL STRENGTH PREDICTION METHODOLOGY 02/09/1994 – 03/31/1998 FY98: \$9,866 Total: \$407,029 <i>Prin. Invest.:</i> N F KNIGHT, M S ANDERSON <i>Tech. Officer:</i> LARC/J H STARNES, LARC/D R AMBUR <i>CASE Category:</i> 41 – AERONAUTICAL ENGR</p> | <p>NAG 1 1859 OLD DOMINION UNIVERSITY 9565 NONLINEAR SENSITIVITY ANALYSIS FOR STATIC AND TRANSIENT THERMAL PROBLEMS 07/08/1996 – 11/30/1997 FY98: \$0 Total: \$24,000 <i>Prin. Invest.:</i> G JOU <i>Tech. Officer:</i> LARC/K S BEY <i>CASE Category:</i> 41 – AERONAUTICAL ENGR</p> |
| <p>NAG 1 1653 OLD DOMINION UNIVERSITY 9559 AN INVESTIGATION OF HIGH-ORDER SHOCK-CAPTURING METHODS FOR COMPUTATIONAL AEROACOUSTICS —MY1/3 01/06/1995 – 03/31/1997 FY98: -\$1 Total: \$140,000 <i>Prin. Invest.:</i> J H CASPER, O BAYSAL <i>Tech. Officer:</i> LARC/H L ATKINS, LARC/J L THOMAS <i>CASE Category:</i> 41 – AERONAUTICAL ENGR</p> | <p>NAG 1 1869 OLD DOMINION UNIVERSITY 9566 MEASUREMENT OF OXYGEN BAND LINE PARAMETERS BY USING MODULATION SPECTROSCOPY WITH HIGHER HARMONIC 09/17/1996 – 11/16/1998 FY98: \$29,352 Total: \$88,487 <i>Prin. Invest.:</i> A H DHARAMSI <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> LARC/W P CHU <i>CASE Category:</i> 31 – ATMOSPHERIC SCIENCE</p> |
| <p>NAG 1 1677 OLD DOMINION UNIVERSITY 9560 PREDICTION AND CONTROL OF SUPERSONIC JET NOISE 01/13/1995 – 09/30/1998 FY98: \$18,000 Total: \$128,001 <i>Prin. Invest.:</i> P BALAKUMAR <i>Tech. Officer:</i> LARC/M G MACARAEG <i>CASE Category:</i> 11 – ASTRONOMY</p> | <p>NAG 1 1934 OLD DOMINION UNIVERSITY 9567 PSE COMPUTATIONS IN THE STRONGLY NONLINEAR REGION 06/10/1997 – 01/05/1998 FY98: \$0 Total: \$22,001 <i>Prin. Invest.:</i> P E ALAKUMAR <i>Tech. Officer:</i> LARC/R D JOSLIN <i>CASE Category:</i> 41 – AERONAUTICAL ENGR</p> |
| <p>NAG 1 1940 OLD DOMINION UNIVERSITY 9568 THE REDUCTION OF DUCTED FAN ENGINE NOISE VIA A BOUNDARY INTEGRAL EQUATION METHOD 05/29/1997 – 05/31/1999 FY98: \$128,000 Total: \$196,512 <i>Prin. Invest.:</i> J T VEED, M DUNN <i>Tech. Officer:</i> LARC/F FARASSAT, LARC/J W POSEY <i>CASE Category:</i> 29 – MATH/COMPUTER SCI, OTHER</p> | |

NAG 1 1960 OLD DOMINION UNIVERSITY **9569**
FIBER OPTIC RECEIVER SYSTEM FOR A WATER VAPOR DIFFERENTIAL LIDAR INSTRUMENT
 08/13/1997 – 08/15/1998 FY98: \$1 Total: \$24,396
Prin. Invest.: H ELSAYED-ALI
Tech. Officer: LARC/R DEYOUNG
CASE Category: 45 – ELECTRICAL ENGR

NAG 1 1982 OLD DOMINION UNIVERSITY **9570**
FINITE ELEMENT ANALYSIS OF REVERBERATION CHAMBERS MY 1/3
 12/15/1997 – 12/31/1998 FY98: \$37,500 Total: \$37,500
Prin. Invest.: C F BUNTING, D T NGUYEN
Tech. Officer: LARC/K J MOELLER
CASE Category: 45 – ELECTRICAL ENGR

NAG 1 1985 OLD DOMINION UNIVERSITY **9571**
SOLUTION STRATEGY FOR NONLINEAR HEAT TRANSFER PROBLEMS MODELED BY HP-VERSION GALERKIN METHODS
 12/18/1997 – 12/31/1998 FY98: \$48,000 Total: \$48,000
Prin. Invest.: G J HOU
Tech. Officer: LARC/K S BEY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1989 OLD DOMINION UNIVERSITY **9572**
A STEP-SCAN FT-RAMAN FIBER-OPTIC SPECTROMETER FOR THERMO-SET COMPOSIT ANALYSIS
 01/06/1998 – 02/05/1999 FY98: \$92,398 Total: \$92,398
Prin. Invest.: J B COOPER
Tech. Officer: LARC/B J JENSEN
CASE Category: 12 – CHEMISTRY

NAG 1 1995 OLD DOMINION UNIVERSITY **9573**
DIAMOND ELECTRON TUNNELING MICROELECTROMECHANICAL SENSOR
 01/23/1998 – 01/22/1999 FY98: \$55,000 Total: \$55,000
Prin. Invest.: S ALBIN
Tech. Officer: LARC/S K KAHNG
CASE Category: 45 – ELECTRICAL ENGR

NAG 1 2037 OLD DOMINION UNIVERSITY **9574**
BENCHMARKING THE FUTURE AUTOMATED AIR TRAFFIC MANAGEMENT SYS
 03/24/1998 – 12/31/1998 FY98: \$15,000 Total: \$15,000
Prin. Invest.: K MALY
Tech. Officer: LARC/R W WILLS
CASE Category: 22 – COMPUTER SCIENCE

NAG 1 2054 OLD DOMINION UNIVERSITY **9575**
DEVELOPMENT OF A THREE-DIMENSIONAL PSE CODE FOR COMPRESSIBLE FLOWS
 04/09/1998 – 09/30/1998 FY98: \$10,001 Total: \$10,001
Prin. Invest.: P BALAKUMAR
Tech. Officer: LARC/R A THOMPSON
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2082 OLD DOMINION UNIVERSITY **9576**
REMOTE SENSED PATTERNS SURFACES IN COASTAL WATERS USING LANDSAT TM IMAGERY & REFLECTED GPS POWER
 06/26/1998 – 12/31/1998 FY98: \$24,964 Total: \$24,964
Prin. Invest.: G F OERTEL, T R ALLEN
Prin. Invest.: NONE
Tech. Officer: LARC/S J KATZBERG, LARC/J L GARRISON
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 1 2100 OLD DOMINION UNIVERSITY **9577**
TRANSITION IN SUPERSONIC FLOWS WITH CORNERS
 08/11/1998 – 08/15/2000 FY98: \$13,000 Total: \$13,000
Prin. Invest.: P BALAKUMAR
Tech. Officer: LARC/C R MCCLINTON, LARC/D E REUBUSH
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2101 OLD DOMINION UNIVERSITY **9578**
THE INFLUENCE OF NAT. CULTURE ON FLT CREW PERF: A CULTURE-CENTERED APPROACH TO HUMAN FACTORS
 08/25/1998 – 08/31/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: D DAVIS
Tech. Officer: LARC/P C SCHUTTE
CASE Category: 62 – PSYCHOLOGY SOCIAL ASPECTS

NAG 1 2102 OLD DOMINION UNIVERSITY **9579**
DATA LINK PERFORMANCE ANALYSIS FOR LVLASO EXPERIMENTS
 08/25/1998 – 09/30/1998 FY98: \$10,000 Total: \$10,000
Prin. Invest.: R MUKKAMALA
Tech. Officer: LARC/R W WILLIS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2105 OLD DOMINION UNIVERSITY **9580**
BIOCYBERNETIC CONTROL OF VIGILANCE TASK PARAMETERS
 09/11/1998 – 07/31/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: F G FREEMAN, M W SCERBO, P J MIKULKA
Tech. Officer: LARC/A T POPE, LARC/L J PRINZEL
CASE Category: 69 – PSYCHOLOGY, OTHER

NAG 5 3567 OLD DOMINION UNIVERSITY **9581**
NASA SPACEPORT INFRASTRUCTURE GRANT PROGRAM TO SUPPORT DEVELOPMENT OF VIRGINIA SPACEFLIGHT CENTER
 01/16/1997 – 01/14/1998 FY98: \$0 Total: \$406,250
Prin. Invest.: B M REED
Tech. Officer: GSFC/G ALCORN, GSFC/N MINNFIELD
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 4515 OLD DOMINION UNIVERSITY **9582**
STUDYING THE EARTH'S ENVIRONMENT IN SPACE: CLASSR ACTIVITIES WITH INSTRUCTION RESOURCES.
 06/02/1997 – 05/31/1999 FY98: \$85,567 Total: \$169,557
Prin. Invest.: E SMITH
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 5100 OLD DOMINION UNIVERSITY **9583**
IMPROVEMENTS TO BALLOON VERTICAL PERFORMANCE MODEL TERRESTRIAL & NON-TERRESTRIAL APPLICATIONS
 02/11/1997 – 12/31/1998 FY98: \$0 Total: \$79,943
Prin. Invest.: G V SELBY
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT
CASE Category: 49 – ENGINEERING, OTHER

NAG 5 5131 OLD DOMINION UNIVERSITY **9584**
INVOLVING STUDENTS IN THE DESIGNING AND DEVELOPING OF A SCIENTIFIC BALLOON PAYLOAD-BALLOONLAUNCH PR
 07/02/1997 – 12/31/1998 FY98: \$35,000 Total: \$35,000
Prin. Invest.: A PIERCE
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 12 – CHEMISTRY

NAG 5 6491 OLD DOMINION UNIVERSITY **9585**
GEOSPATIAL EDUCATION AND RESEARCH DEVELOPMENT: A L ABORATORY FOR REMOTE SENSING AND ENVIRONMENTAL ANALYSIS
 10/27/1997 - 09/30/1998 FY98: \$95,000 Total: \$95,000
Prin. Invest.: T ALLEN, JR.
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 956 OLD DOMINION UNIVERSITY **9586**
RADIO FREQUENCY DISCHARGE ENHANCEMENT OF OXYGEN PRODUCTION FROM CO2
 08/27/1997 - 03/01/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: L VUSKOVIC
Tech. Officer: JSC/D I KAPLAN, JSC/G B SANDERS
CASE Category: 13 - PHYSICS

NAGW 3550 OLD DOMINION UNIVERSITY **9587**
ASSIMILATION OF OCEAN COLOR MEASUREMENT INTO PHYSICAL BIOLOGICAL MODELS
 04/29/1993 - 09/30/1997 FY98: \$0 Total: \$485,000
Prin. Invest.: E HOFMANN
Tech. Officer: HQ/R E MURPHY, HQ/D M BUTLER
CASE Category: 33 - OCEANOGRAPHY

NAGW 3981 OLD DOMINION UNIVERSITY **9588**
AVHRR PATHFINDER OCEAN DATA VALIDATION
 05/14/1994 - 03/31/1997 FY98: \$0 Total: \$383,690
Prin. Invest.: E SMITH
Tech. Officer: HQ/M E MAIDEN
CASE Category: 33 - OCEANOGRAPHY

NAGW 5248 OLD DOMINION UNIVERSITY **9589**
BUSINESS PLAN FOR THE VIRGINIA SPACE FLIGHT CENTER
 10/29/1996 - 12/31/1997 FY98: \$0 Total: \$50,000
Prin. Invest.: B REED
Tech. Officer: HQ/Y R YADVISH
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAS 1 19858 OLD DOMINION UNIVERSITY **9590**
RESEARCH IN AERODYNAMICS AND RELATED FIELDS
 11/05/1992 - 11/04/1998 FY98: \$1,276,806 Total: \$8,820,700
Prin. Invest.:
Tech. Officer: LARC/E J PRIOR, LARC/R L YANG
CASE Category: 41 - AERONAUTICAL ENGR

NAS 5 97132 OLD DOMINION UNIVERSITY **9591**
REMOTE SENSING OF OCEAN COLOR IN THE ARCTIC
 09/01/1997 - 08/31/1998 FY98: \$256,542 Total: \$256,542
Prin. Invest.: G F COTA
Tech. Officer: GSFC/C MCCLAIN
CASE Category: 33 - OCEANOGRAPHY

NCC 1 42 OLD DOMINION UNIVERSITY **9592**
A STUDY OF PHYSICAL PROCESSES FOR SPACE - RELATED PROTECTION
 06/04/1980 - 09/30/1998 FY98: \$0 Total: \$1,606,888
Prin. Invest.: G S KHANDELWAL
Tech. Officer: LARC/L W TOWNSEND, LARC/E J CONWAY
CASE Category: 13 - PHYSICS

NCC 1 219 OLD DOMINION UNIVERSITY **9593**
DEVELOPMENT OF A PHOTON COUNTING SYSTEM FOR DIFFERENTIAL LIDAR SIGNAL DETECTION
 01/23/1996 - 12/31/1996 FY98: -\$1 Total: \$18,990
Prin. Invest.: H ELSAYED-ALI
Tech. Officer: LARC/E J CONWAY, LARC/R J DE YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 1 227 OLD DOMINION UNIVERSITY **9594**
INVESTIGATION OF ADVANCED COMPOSITE MATERIALS AND AUTOMATED PROCESS
 05/17/1996 - 11/30/1998 FY98: \$213,566 Total: \$557,162
Prin. Invest.: M MARCHELLO
Tech. Officer: LARC/N J JOHNSTON, LARC/R J CANO
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 1 230 OLD DOMINION UNIVERSITY **9595**
LIDAR DETECTION SYSTEM DEVELOPMENT OF AN ADVANCED WATER VAPOR
 06/10/1996 - 06/15/1998 FY98: \$1 Total: \$51,954
Prin. Invest.: H EL SAYID EL
Tech. Officer: LARC/R J DE YOUNG
CASE Category: 45 - ELECTRICAL ENGR

NCC 1 232 OLD DOMINION UNIVERSITY **9596**
INSTITUTE FOR SCIENTIFIC AND EDUCATIONAL TECHNOLOGY (ISET)
 06/17/1996 - 06/30/1999 FY98: \$664,330 Total: \$1,076,655
Prin. Invest.: S TIWARI
Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 235 OLD DOMINION UNIVERSITY **9597**
DEVELOPMENT OF A THREE DIMENSIONAL PSE CODE FOR COMPRESSIBLE FLOWS
 07/02/1996 - 06/30/1997 FY98: -\$43 Total: \$28,394
Prin. Invest.: P L BALAKUMAR
Tech. Officer: LARC/R A THOMPSON, LARC/C G MILLER
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 248 OLD DOMINION UNIVERSITY **9598**
MAGNETIC SUSPENSION TECHNOLOGY DEVELOPMENT
 01/09/1997 - 05/31/1998 FY98: \$0 Total: \$42,214
Prin. Invest.: C P BRITCHER
Tech. Officer: LARC/N J GROOM
CASE Category: 49 - ENGINEERING, OTHER

NCC 1 254 OLD DOMINION UNIVERSITY **9599**
ASSESSMENT OF BIOMEDICAL ENGINEERING IN MAN/ MACHINE INTERACTIONS
 04/22/1997 - 04/21/1999 FY98: \$29,474 Total: \$47,475
Prin. Invest.: S TIWARI
Tech. Officer: LARC/A T POPE
CASE Category: 46 - MECHANICAL ENGR

NCC 1 273 OLD DOMINION UNIVERSITY **9600**
CONTROL DESIGN STRATEGIES TO ENHANCE LONG-TERM AIRCRAFT STRUCTURAL INTEGRITY
 01/12/1998 - 01/11/1999 FY98: \$26,500 Total: \$26,500
Prin. Invest.: B A NEWMAN
Tech. Officer: LARC/S M JOSHI
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 284 OLD DOMINION UNIVERSITY **9601**
SIMULATION OF STRUCTURAL DAMAGE AND ITS PROPAGATION IN COMPOSITE SHELLS INCLUDING INTERLAMINAR
 04/07/1998 – 12/31/1998 FY98: \$79,000 Total: \$79,000
Prin. Invest.: C MEI
Tech. Officer: LARC/J H STARNES, LARC/D R AMBUR
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 320 OLD DOMINION UNIVERSITY **9602**
STUDY OF APPLICATION OF GREEN'S FUNCTION METHODS APPLIED TO SPACE RADIATION PROTECTION
 09/23/1998 – 09/30/2001 FY98: \$25,955 Total: \$25,955
Prin. Invest.: J H HEINBOCKEL
Tech. Officer: LARC/R C SINGLETERRY, LARC/J W WILSON
CASE Category: 13 – PHYSICS

NCC 3 469 OLD DOMINION UNIVERSITY **9603**
THE REDUCTION OF DUCTED FAN ENGINE NOISE VIA A BOUNDARY INTEGRAL EQUATION METHOD
 04/22/1996 – 04/21/1997 FY98: -\$4,305 Total: \$115,695
Prin. Invest.: D TWEED, D DUNN
Tech. Officer: LERC/D HUFF
CASE Category: 41 – AERONAUTICAL ENGR

NCC 5 258 OLD DOMINION UNIVERSITY **9604**
PHYSICAL-BIOLOGICAL INTERACTIONS IN THE GLOBAL EQUATORIAL SURFACE LAYER
 11/17/1997 – 10/31/1998 FY98: \$119,046 Total: \$119,046
Prin. Invest.: E HOFMANN
Tech. Officer: GSFC/G ASRAR
CASE Category: 11 – ASTRONOMY

NGT 30354 OLD DOMINION UNIVERSITY **9605**
GLOBAL CHANGE FELLOWSHIP AWARD
 07/20/1995 – 08/31/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: E HOFMANN, T BUSALACCHI
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 33 – OCEANOGRAPHY

NGT 51164 OLD DOMINION UNIVERSITY **9606**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/23/1993 – 06/30/1997 FY98: \$0 Total: \$40,334
Prin. Invest.: S TIWARI
Tech. Officer: HQ/J T LYNCH
CASE Category: 46 – MECHANICAL ENGR

NGT 51253 OLD DOMINION UNIVERSITY **9607**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/14/1994 – 06/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: J B COOPER
Tech. Officer: LARC/L EVANS
CASE Category: 12 – CHEMISTRY

NGT 51259 OLD DOMINION UNIVERSITY **9608**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/09/1994 – 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: R L ASH
Tech. Officer: LARC/L EVANS
CASE Category: 41 – AERONAUTICAL ENGR

NGT 70308 OLD DOMINION UNIVERSITY **9609**
GRADUATE STUDENT RESEARCHERS PROGRAM
 05/20/1993 – 08/31/1997 FY98: \$0 Total: \$88,000
Prin. Invest.: S ALBIN
Tech. Officer: HQ/D K RUSSELL
CASE Category: 45 – ELECTRICAL ENGR

NGT 1 52123 OLD DOMINION UNIVERSITY **9610**
GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 05/15/1996 – 06/30/1999 FY98: \$3 Total: \$44,004
Prin. Invest.: L J PRINZEL, F G FREEMAN
Tech. Officer: LARC/A T POPE, LARC/J R COMSTOCK, JR.
CASE Category: 69 – PSYCHOLOGY, OTHER

NGT 1 52124 OLD DOMINION UNIVERSITY **9611**
GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 05/15/1996 – 06/30/1999 FY98: \$22,000 Total: \$54,000
Prin. Invest.: K L WISE, J B COOPER
Tech. Officer: LARC/B J JENSEN
CASE Category: 12 – CHEMISTRY

NGT 1 52130 OLD DOMINION UNIVERSITY **9612**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 06/06/1996 – 06/30/1999 FY98: \$12,001 Total: \$44,001
Prin. Invest.: S A SCEARCE
Tech. Officer: LARC/R WILLIAMS, LARC/T NGUYEN
CASE Category: 45 – ELECTRICAL ENGR

NGT 1 52131 OLD DOMINION UNIVERSITY **9613**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/06/1996 – 06/30/1997 FY98: -\$1 Total: \$22,000
Prin. Invest.: A M BULLOCK
Tech. Officer: LARC/W P CHU
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 1 52144 OLD DOMINION UNIVERSITY **9614**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 07/11/1996 – 05/31/1998 FY98: -\$1 Total: \$22,000
Prin. Invest.: D PRABHAKARAN, M G FIELDS
Tech. Officer: LARC/T L ST. CLARON, LARC/R G BRYANT
CASE Category: 46 – MECHANICAL ENGR

NGT 1 52157 OLD DOMINION UNIVERSITY **9615**
NASA-ASEE SUMMER FACULTY FELLOWSHIP PROGRAM
 03/11/1997 – 12/31/1998 FY98: \$0 Total: \$638,001
Prin. Invest.: S TIWARI
Tech. Officer: LARC/R A HATHAWAY, LARC/E J PRIOR
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52168 OLD DOMINION UNIVERSITY **9616**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/14/1997 – 06/30/1998 FY98: \$12,000 Total: \$22,001
Prin. Invest.: P SHEA
Tech. Officer: LARC/W T CHU
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 1 52171 OLD DOMINION UNIVERSITY **9617**
GRADUATE STUDENT RESEARCHERS PROGRAM
 05/29/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: C P BRITCHER
Tech. Officer: LARC/N J GROOW
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52173 OLD DOMINION UNIVERSITY **9618**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/07/1997 - 06/30/1999 FY98: \$22,000 Total: \$32,000
Prin. Invest.: C MEI
Tech. Officer: LARC/J H STARNES, JR.
CASE Category: 41 - AERONAUTICAL ENGR

NGT 1 52192 OLD DOMINION UNIVERSITY **9619**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/20/1998 - 06/30/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: T M EISCHEID, M SCERBO
Tech. Officer: LARC/A T POPE, LARC/P C SCHUTTE
CASE Category: 69 - PSYCHOLOGY, OTHER

NGT 1 52193 OLD DOMINION UNIVERSITY **9620**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/20/1998 - 06/30/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: A FITZGIBBONS
Tech. Officer: LARC/P C SHUTTE
CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

NGT 1 52194 OLD DOMINION UNIVERSITY **9621**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/20/1998 - 06/30/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: D RICHMOND, S ALBIN
Tech. Officer: LARC/S K KAHNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 1 52201 OLD DOMINION UNIVERSITY **9622**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 08/31/1998 - 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: C K AASEN
Tech. Officer: LARC/A E MOTLEY, III, LARC/A G HAGEMANN
CASE Category: 49 - ENGINEERING, OTHER

NGT 5 40009 OLD DOMINION UNIVERSITY **9623**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 11/16/1996 - 11/30/1997 FY98: \$8,452 Total: \$103,086
Prin. Invest.: M L SANDY
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40059 OLD DOMINION UNIVERSITY **9624**
IN SUPPORT OF THE NATIONAL SPACE GRANT COLLEGE PROGRAM
 02/21/1997 - 01/31/2001 FY98: \$585,000 Total: \$990,000
Prin. Invest.: M L SANDY
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 90043 OLD DOMINION UNIVERSITY **9625**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)
 01/30/1997 - 12/31/1997 FY98: \$0 Total: \$12,000
Prin. Invest.: N BRONW-HILL
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 49 - ENGINEERING, OTHER

NGT47 3029 OLD DOMINION UNIVERSITY **9626**
TO SUPPORT THE SUMMER FACULTY FELLOWSHIP PROGRAM IN RESEARCH \$150,870
 11/14/1969 - 15/31/1997 FY98: \$0 Total: \$4,824,084
Prin. Invest.: S N TIWARI
Tech. Officer: HQ/A S MCGEE, HQ/E T SCHWARTZ
CASE Category: 49 - ENGINEERING, OTHER

NAG 8 1009 RADFORD UNIVERSITY **9627**
JOVE
 11/24/1993 - 15/31/1997 FY98: -\$4,740 Total: \$71,101
Prin. Invest.: J D ECKERT, B H KUENNECKE
Tech. Officer: ISFC/F SIX
CASE Category: 11 - ASTRONOMY

NAG 5 5053 ROANOKE COLLEGE **9628**
CROSS SECTION CALCULATION FOR COSMIC RAY DATA ANALYSIS OF NASA SPONSORED EXPERIMENTS
 03/27/1996 - 09/30/1998 FY98: \$0 Total: \$80,000
Prin. Invest.: C TASCO
Tech. Officer: GSFC/H NEEDLEMAN
CASE Category: 13 - PHYSICS

NAG 5 5165 ROANOKE COLLEGE **9629**
IMPROVED MODELING FOR THE COSMIC RAY ORIGIN FUNDING FOR FIRST YEAR OF GRANT
 03/09/1998 - 12/31/1998 FY98: \$40,000 Total: \$40,000
Prin. Invest.: C H TSAO
Tech. Officer: GSFC/B A MERRITT
CASE Category: 13 - PHYSICS

NAG 8 1208 ROANOKE COLLEGE **9630**
JOVE
 09/25/1995 - 01/30/1999 FY98: \$15,000 Total: \$51,008
Prin. Invest.: A F BARGHOUTY
Tech. Officer: GSFC/D SIX
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 4639 ROANOKE COLLEGE **9631**
CROSS SECTION CALCULATIONS FOR COSMIC-RAY DATA ANALYSIS OF NASA SPONSORED EXPERIMENTS
 07/31/1995 - 01/30/1998 FY98: \$0 Total: \$40,000
Prin. Invest.: C H TSAO
Tech. Officer: HQ/M FORMAN, HQ/J D BOHLIN
CASE Category: 13 - PHYSICS

NGT 9 13 SHENANDOAH UNIVERSITY **9632**
SUMMER FACULTY FELLOWSHIP
 09/24/1996 - 01/30/1999 FY98: \$0 Total: \$15,000
Prin. Invest.: S I EMOINE
Tech. Officer: GSFC/E PRITCHARD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 1 745 UNIVERSITY OF VIRGINIA **9633**
ENVIRONMENT ASSISTED DEGRADATION MECHANISMS IN ALUMINUM-LITHIUM ALLOYS
 03/23/1987 - 12/31/1998 FY98: \$449,901 Total: \$8,724,953
Prin. Invest.: R F GANGLOFF, G E STONER
Tech. Officer: LARC/D L DICUS, LARC/D M ROYSTER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1123 UNIVERSITY OF VIRGINIA **9634**
SOFTWARE FAULT TOLERANCE USING DATA DIVERSITY FDP
 04/02/1990 – 01/06/1999 FY98: \$95,000 Total: \$753,380
Prin. Invest.: J C KNIGHT
Tech. Officer: LARC/D E ECKHARDT
CASE Category: 22 – COMPUTER SCIENCE

NAG 1 1162 UNIVERSITY OF VIRGINIA **9635**
TRANSVERSRE STRESSES IN LAMINATED COMPOSITE PANELS (FDP)
 07/11/1990 – 04/30/1998 FY98: \$0 Total: \$645,975
Prin. Invest.: A K NOOR
Tech. Officer: LARC/J H STARNES
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1678 UNIVERSITY OF VIRGINIA **9636**
TECHNOLOGY FOR ELEVATED TEMPERATURE TESTS OF STRUC TURAL PANELS
 01/30/1995 – 12/31/1998 FY98: \$0 Total: \$190,744
Prin. Invest.: E A THORNTON, G LAUFER
Tech. Officer: LARC/S J SCOTTI, LARC/J W SAWYER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1680 UNIVERSITY OF VIRGINIA **9637**
MICROGRAVITY CHEMICAL VAPOR DEPOSITION
 01/27/1995 – 03/31/1997 FY98: -\$1 Total: \$105,801
Prin. Invest.: W A JESSER
Tech. Officer: LARC/I O CLARK
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 1 1723 UNIVERSITY OF VIRGINIA **9638**
MOLECULAR MODELING OF POLYIMIDES
 04/26/1995 – 01/31/1998 FY98: -\$260 Total: \$66,139
Prin. Invest.: B L FARMER
Tech. Officer: LARC/J A HINKLEY, LARC/T S GATES
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 1 1774 UNIVERSITY OF VIRGINIA **9639**
LASE VALIDATION EXPERIMENT
 10/24/1995 – 03/31/1999 FY98: \$0 Total: \$96,893
Prin. Invest.: M GARSTANG
Tech. Officer: LARC/E V BROWELL, LARC/E J CONWAY
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1841 UNIVERSITY OF VIRGINIA **9640**
NASA/UVA LIGHT AEROSPACE ALLOY AND STRUCTURES TECH PROGRAM (LA2ST)
 05/31/1996 – 05/31/1999 FY98: \$0 Total: \$120,000
Prin. Invest.: R P GANGLOFF
Tech. Officer: LARC/R S PIASCIK
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 1 1854 UNIVERSITY OF VIRGINIA **9641**
LOCAL GRADIENTS, DISCONTINUITIES AND LOAD DIF FUSION IN COMPOSITE STRUCTURES
 07/10/1996 – 07/09/1997 FY98: -\$2,512 Total: \$27,488
Prin. Invest.: D O HORGAN, D G SIMMONDS
Tech. Officer: LARC/D P NEMETH, LARC/D H STARNES
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1953 UNIVERSITY OF VIRGINIA **9642**
INTELLIGENT PROCESSING OF MATERIALS
 08/13/1997 – 01/31/1999 FY98: \$150,001 Total: \$300,001
Prin. Invest.: H N WADLEY
Tech. Officer: HQ/C MOORE
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 1 1962 UNIVERSITY OF VIRGINIA **9643**
DEPOSITION OF FILMS FOR OPTIMAL GIANT MAGNETS RESI STANCE
 08/21/1997 – 05/31/1999 FY98: \$350,000 Total: \$700,000
Prin. Invest.: H N WADLEY
Tech. Officer: LARC/B R HANKS
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1964 UNIVERSITY OF VIRGINIA **9644**
INTELLIGENT PROCESSING OF MATERIALS FOR DESIGN AND MANUFAC-TURING, ETC.
 09/30/1997 – 07/31/1999 FY98: \$1,829,282 Total: \$3,446,223
Prin. Invest.: H N WADLEY
Tech. Officer: LARC/C MOORE
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2004 UNIVERSITY OF VIRGINIA **9645**
IMPEDANCE MODULATION.
 02/11/1998 – 02/10/1999 FY98: \$96,501 Total: \$96,501
Prin. Invest.: W E ZORUMSKI
Tech. Officer: LARC/C H GERHOLD, LARC/J W POSEY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2016 UNIVERSITY OF VIRGINIA **9646**
EFFECT OF DISCONTINUITIES AND UNCERTAINTIES ON THE RESPONSE AND FAILURE OF COMPOSITE STRUCTURES
 02/27/1998 – 01/31/1999 FY98: \$82,100 Total: \$82,100
Prin. Invest.: A K NOOR
Tech. Officer: LARC/J H STARNES
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2031 UNIVERSITY OF VIRGINIA **9647**
LOAD DIFFUSION IN COMPOSITE STRUCTURES
 03/25/1998 – 03/24/1999 FY98: \$20,000 Total: \$20,000
Prin. Invest.: C O HORGAN
Tech. Officer: LARC/J H STARNES, LARC/M P NEMETH
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2085 UNIVERSITY OF VIRGINIA **9648**
DUAL-MODE COMBUSTION
 06/30/1998 – 09/30/1998 FY98: \$200,000 Total: \$200,000
Prin. Invest.: J C MCDANIEL, E H MASLEN, H K CHELLAH
Tech. Officer: LARC/D E REUBUSH, LARC/C R MCCLINTON
CASE Category: 41 – AERONAUTICAL ENGR

NAG 3 1916 UNIVERSITY OF VIRGINIA **9649**
INSTABILITY MECHANISMS OF THERMALLY-DRIVEN INTERFA CIAL FLOWS IN LIGHT-ENCAPSULATED CRYSTALGROWTH
 07/16/1996 – 07/16/2000 FY98: \$89,000 Total: \$173,000
Prin. Invest.: H HAJ-HARIRI
Tech. Officer: LERC/T GLASGOW
CASE Category: 46 – MECHANICAL ENGR

NAG 3 1928 UNIVERSITY OF VIRGINIA **9650**
HETEROGENEOUS COMB OF POROUS SOLID FUEL PART UNDER MICROGRAV: A COMPREHENSIVE THERO & EXPSTUDIES
 07/23/1996 - 07/24/2000 FY98: \$55,625 Total: \$141,650
Prin. Invest.: H CHELLIAH, F MILLER
Tech. Officer: LERC/H ROSS
 CASE Category: 46 - MECHANICAL ENGR

NAG 3 1948 UNIVERSITY OF VIRGINIA **9651**
EXTENSIONS TO THE TURBO CODING SCHEME
 08/12/1996 - 09/30/1998 FY98: \$69,428 Total: \$131,653
Prin. Invest.: D G WILSON, M K HALL
Tech. Officer: LERC/M KIFLE, LERC/M V NGUYEN
 CASE Category: 45 - ELECTRICAL ENGR

NAG 3 1987 UNIVERSITY OF VIRGINIA **9652**
MICROMECHANICAL MODELLING OF WOVEN GRAPHITE/COPPER COMPOSITES UNDER THERMOMECHANICAL LOADING
 11/20/1996 - 11/19/1997 FY98: \$0 Total: \$59,848
Prin. Invest.: M J PINDER
Tech. Officer: LERC/R V MINER
 CASE Category: 47 - METAL & MATERIALS ENGR

NAG 3 2009 UNIVERSITY OF VIRGINIA **9653**
LOW POWER LOSS MAGNETIC BEARINGS FROM FLYWHEEL AND TURBINE ENGINE APPLICATIONS
 02/12/1997 - 05/31/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: P E ALLAIRE, G T GILLIES
Tech. Officer: LERC/A J PROVENZA, LERC/G V BROWN
 CASE Category: 46 - MECHANICAL ENGR

NAG 3 2183 UNIVERSITY OF VIRGINIA **9654**
MEASUREMENT AND ANALYSIS OF POWER LOSSES IN MAGNETIC BEARINGS: PHASE II
 07/23/1998 - 11/19/1998 FY98: \$25,000 Total: \$25,000
Prin. Invest.: P E ALLAIRE
Tech. Officer: LERC/A J PROVENZA
 CASE Category: 46 - MECHANICAL ENGR

NAG 3 2199 UNIVERSITY OF VIRGINIA **9655**
ADVANCED CONTROL OF FLYWHEELS WITH ACTIVE MAGNETIC BEARINGS
 09/10/1998 - 11/05/1998 FY98: \$5,800 Total: \$5,800
Prin. Invest.: C R KNOSPE
Tech. Officer: LERC/G BROWN
 CASE Category: 46 - MECHANICAL ENGR

NAG 5 700 UNIVERSITY OF VIRGINIA **9656**
ULTRAVIOLET IMAGING TELESCOPE ASTRONOMICAL OBSERVATIONS
 09/01/1985 - 07/14/1998 FY98: \$0 Total: \$898,552
Prin. Invest.: R W O CONNELL
Tech. Officer: GSFC/T P STECHER, GSFC/G R BAKER
 CASE Category: 11 - ASTRONOMY

NAG 5 1961 UNIVERSITY OF VIRGINIA **9657**
INTERDISCIPLINARY RESEARCH SCENARIO TESTING OF EOS DIS, VERSION O - SERIES 2
 04/03/1992 - 08/14/1998 FY98: \$0 Total: \$452,009
Prin. Invest.: M GARSTANG, G D EMMITT
Tech. Officer: GSFC/STOCKEY
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2061 UNIVERSITY OF VIRGINIA **9658**
TRMM ATMOSPHERIC BUDGET STUDY
 08/05/1992 - 12/14/1998 FY98: \$0 Total: \$241,384
Prin. Invest.: M GARSTANG
Tech. Officer: GSFC/O W THIELE
 CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2295 UNIVERSITY OF VIRGINIA **9659**
MULTIDISCIPLINE INTEGRATIVE MODELS OF FOREST ECOSYSTEM DYNAMICS FOR THE BOREAL FOREST BIOME
 06/17/1993 - 06/30/1998 FY98: \$0 Total: \$218,089
Prin. Invest.: H H SHUGART
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2526 UNIVERSITY OF VIRGINIA **9660**
X-RAY SPECTRA OF CLUSTER COOLING FLOWS WITH EXCESS DYNAMICS
 03/09/1994 - 03/14/1998 FY98: \$0 Total: \$243,689
Prin. Invest.: L L SARAZIN
Tech. Officer: GSFC/N WHITE
 CASE Category: 11 - ASTRONOMY

NAG 5 3056 UNIVERSITY OF VIRGINIA **9661**
DYNAMICS OF MASS TRANSFER IN CLOSE INTERACTING BINARIES
 09/01/1995 - 12/14/1998 FY98: \$0 Total: \$31,500
Prin. Invest.: M RICHARDS
Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3057 UNIVERSITY OF VIRGINIA **9662**
DYNAMICS AND EMISSION OF HOT ASTROPHYSICAL PLASMAS
 09/15/1995 - 09/14/1999 FY98: \$0 Total: \$288,000
Prin. Invest.: L L SARAZIN
Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3058 UNIVERSITY OF VIRGINIA **9663**
NUMERICAL MHD STUDIES OF ACCRETION DISKS
 09/25/1995 - 09/30/1999 FY98: \$60,000 Total: \$180,000
Prin. Invest.: J F HAWLEY
Tech. Officer: GSFC/D WEST
 CASE Category: 11 - ASTRONOMY

NAG 5 3112 UNIVERSITY OF VIRGINIA **9664**
REMOTE SENSING AND MODELING OF THE CANOPY STRUCTURE OF DECIDUOUS FORESTS
 10/26/1995 - 10/31/1997 FY98: \$0 Total: \$24,000
Prin. Invest.: H H SHUGART, JR.
Tech. Officer: GSFC/D J HARDING
 CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 3308 UNIVERSITY OF VIRGINIA **9665**
B2 1028+313 AND ABELL 1030: A QUASAR IN THE CENTER OF A CLUSTER COOLING FLOW
 07/24/1996 - 01/31/1998 FY98: \$0 Total: \$7,600
Prin. Invest.: L L SARAZIN
Tech. Officer: GSFC/R PETRE
 CASE Category: 11 - ASTRONOMY

NAG 5 3342 UNIVERSITY OF VIRGINIA **9666**
FAR-INFRARED EMISSION FROM THE CORES OF RICH CLUSTERS
 08/09/1996 – 08/14/1998 FY98: \$0 Total: \$47,950
Prin. Invest.: C J COX
Tech. Officer: GSFC/D WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3428 UNIVERSITY OF VIRGINIA **9667**
A LOCAL PERSPECTIVE ON GALAXY EVOLUTION IN THE EARTH
 09/19/1996 – 04/30/1998 FY98: \$0 Total: \$201,900
Prin. Invest.: R W O'CONNELL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 – ASTRONOMY

NAG 5 3633 UNIVERSITY OF VIRGINIA **9668**
CHARGED PARTICLE INDUCED ALTERATIONS OF SURFACES I
 03/13/1997 – 01/31/1999 FY98: \$38,955 Total: \$68,955
Prin. Invest.: R E JOHNSON
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3931 UNIVERSITY OF VIRGINIA **9669**
EROSIONAL PROCESSES ON MARS
 03/12/1997 – 02/28/1999 FY98: \$60,063 Total: \$116,663
Prin. Invest.: A D HOWARD
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 3973 UNIVERSITY OF VIRGINIA **9670**
ADVANCED COMPUTATIONAL METHODS FOR THE NUMERICAL S METEOROLOGICAL FLOW PROBLEMS
 03/03/1997 – 01/31/1999 FY98: \$100,000 Total: \$199,830
Prin. Invest.: J J DORNING
Tech. Officer: GSFC/K H BERGMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4192 UNIVERSITY OF VIRGINIA **9671**
ION COLLISION PROCESSES: PLASMA INTERACTIONS WITH AN NEUTRAL CORONA
 04/10/1997 – 03/31/1999 FY98: \$83,890 Total: \$164,819
Prin. Invest.: D E JOHNSON
Tech. Officer: GSFC/J BERGSTRALH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4283 UNIVERSITY OF VIRGINIA **9672**
EROSION AND ALTERATION OF INTERSTELLAR AND INTERPL
 04/07/1997 – 05/31/1999 FY98: \$38,000 Total: \$76,000
Prin. Invest.: D E JOHNSON
Tech. Officer: GSFC/D BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4332 UNIVERSITY OF VIRGINIA **9673**
SUBLIMATION AND OPTICAL PROPERTIES OF ICES AT LOW TO SOLAR SYSTEM OBJECTS
 04/30/1997 – 03/31/2001 FY98: \$50,496 Total: \$95,496
Prin. Invest.: D A BARAGIOLA
Tech. Officer: GSFC/P ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4368 UNIVERSITY OF VIRGINIA **9674**
FIRST YEAR OF TECHNICAL PROPOSAL, LAND-COVER/LAND-
 05/02/1997 – 04/14/2000 FY98: \$200,000 Total: \$349,428
Prin. Invest.: C O JUSTICE
Tech. Officer: GSFC/A C JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NAG 5 4516 UNIVERSITY OF VIRGINIA **9675**
CLUSTER DARK MATTER DENSITY PROFILES AT VERY LARGE OF CLUSTER COOLING FLOWS: SPECTRAL EVIDENCE FOR C
 08/19/1997 – 08/31/1998 FY98: \$0 Total: \$48,300
Prin. Invest.: C L SARAZIN
Tech. Officer: GSFC/N WHITE
CASE Category: 11 – ASTRONOMY

NAG 5 4600 UNIVERSITY OF VIRGINIA **9676**
MAGNETOHYDRODYNAMICS OF THE SOLAR NEBULA
 05/14/1997 – 05/31/1999 FY98: \$0 Total: \$55,602
Prin. Invest.: S A BALBUS
Tech. Officer: GSFC/J BOYCE
CASE Category: 11 – ASTRONOMY

NAG 5 4651 UNIVERSITY OF VIRGINIA **9677**
ALTERATIONS OF PLANETARY MATERIALS BY PHOTON AND P
 06/27/1997 – 05/31/1999 FY98: \$0 Total: \$55,000
Prin. Invest.: D BARAGIOLA
Tech. Officer: GSFC/D NAVA
CASE Category: 11 – ASTRONOMY

NAG 5 4750 UNIVERSITY OF VIRGINIA **9678**
REDESIGN OF SWAS SUBHARMONIC MIXERS USING PLANAR S
 06/17/1997 – 11/30/1998 FY98: \$0 Total: \$38,000
Prin. Invest.: J HESLER
Tech. Officer: GSFC/G CHIN
CASE Category: 11 – ASTRONOMY

NAG 5 4779 UNIVERSITY OF VIRGINIA **9679**
AQUARIUS
 06/18/1997 – 05/31/1999 FY98: \$339,422 Total: \$435,634
Prin. Invest.: M GARSTANG
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 5 4787 UNIVERSITY OF VIRGINIA **9680**
TWILIGHT OF THE GODS: THE MASSIVE, LONG PERIOD, AC VV CEPHEI ENTERS ECLIPSE
 06/26/1997 – 06/30/1998 FY98: \$0 Total: \$6,400
Prin. Invest.: C SARAZIN
Tech. Officer: GSFC/R PETRE
CASE Category: 11 – ASTRONOMY

NAG 5 6043 UNIVERSITY OF VIRGINIA **9681**
EFFECTS OF THE DEVELOPMENT OF THE BAIKAL-AMUR MAIN PATTERNS OF BOREAL FOREST COVER AND CARBON FLUXES
 07/23/1997 – 07/31/1999 FY98: \$60,300 Total: \$139,113
Prin. Invest.: H SHUGART
Tech. Officer: GSFC/A JANETOS
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

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| NAG 5 6084 UNIVERSITY OF VIRGINIA 9682 SUPERCONDUCTOR AND SEMICONDUCTOR RESEARCH FOR NASA WAVE-LENGTH MISSIONS 08/08/1997 - 09/30/1999 FY98: \$193,000 Total: \$233,000 Prin. Invest.: D W CROWE, NONE Tech. Officer: GSFC/H THRONSON CASE Category: 11 - ASTRONOMY | NAG 5 6826 UNIVERSITY OF VIRGINIA 9690 GAS EVOLUTION FROM ICY SURFACES 01/15/1998 - 01/14/1999 FY98: \$30,000 Total: \$30,000 Prin. Invest.: R BARAGIOLA Tech. Officer: GSFC/R BEEBE CASE Category: 11 - ASTRONOMY |
| NAG 5 6279 UNIVERSITY OF VIRGINIA 9683 GLOBAL VEGETATION DYNAMICS 09/12/1997 - 08/31/1999 FY98: \$77,434 Total: \$151,889 Prin. Invest.: H H SHUGART Tech. Officer: GSFC/D WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7031 UNIVERSITY OF VIRGINIA 9691 EVALUATION OF INCREMENTAL RELEASES OF ECS USER INTERFACE AND THE DEVELOPMENT OF HDF/HDF-EOS 02/19/1998 - 02/14/1999 FY98: \$113,851 Total: \$113,851 Prin. Invest.: G D EMMITT Prin. Invest.: NONE Tech. Officer: GSFC/H K RAMPRIYAN CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 6351 UNIVERSITY OF VIRGINIA 9684 VEMAP PHASE II. 09/12/1997 - 05/31/1999 FY98: \$97,937 Total: \$195,895 Prin. Invest.: T SMITH Tech. Officer: GSFC/A JANETOS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7101 UNIVERSITY OF VIRGINIA 9692 ULTRAVIOLET SPECTRAL DIAGNOSTICS FOR OLD STELLAR POPULATIONS 03/13/1998 - 03/31/1999 FY98: \$15,092 Total: \$15,092 Prin. Invest.: B DORMAN Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY |
| NAG 5 6384 UNIVERSITY OF VIRGINIA 9685 THE COUPLING LAND-USE AND LAND-COVER CHANGES, AND MIOMBO WOODLANDS 09/26/1997 - 10/31/1999 FY98: \$217,500 Total: \$501,615 Prin. Invest.: P DESANKER Tech. Officer: GSFC/A C JANETOS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7163 UNIVERSITY OF VIRGINIA 9693 ALTERATIONS OF PLANETARY MATERIALS BY PHOTON AND PARTICLE IRRADIATION 03/17/1998 - 05/31/1999 FY98: \$16,667 Total: \$16,667 Prin. Invest.: R A BARAGIOLA Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY |
| NAG 5 6403 UNIVERSITY OF VIRGINIA 9686 CRITICAL TESTS OF STELLAR EVOLUTION (LTSA) 10/10/1997 - 10/14/1998 FY98: \$74,000 Total: \$74,000 Prin. Invest.: R O'CONNELL Tech. Officer: GSFC/D WEST CASE Category: 11 - ASTRONOMY | NAG 5 7266 UNIVERSITY OF VIRGINIA 9694 SOUTHERN AFRICAN VALIDATION OF EOS GROUND AND AIRBORNE INSTRUMENTATION AND VALIDATION ACTIVITIES 04/30/1998 - 04/30/1999 FY98: \$197,901 Total: \$197,901 Prin. Invest.: R J SWAPP Tech. Officer: GSFC/J PRIVETT CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 6507 UNIVERSITY OF VIRGINIA 9687 THE DEVELOPMENT OF SUBMILLIMETER WAVELENGTH RECEIVERS FOR REMOTE SENSING 11/04/1997 - 10/31/1999 FY98: \$356,217 Total: \$356,217 Prin. Invest.: J HESLER Tech. Officer: GSFC/L HILLIARD CASE Category: 31 - ATMOSPHERIC SCIENCE | NAG 5 7417 UNIVERSITY OF VIRGINIA 9695 CENTRAL AFRICAN REGIONAL PROJECT FOR THE ENVIRONMENT: REMOTE SENSING AND GIS SUPPORT ACTIVITIES 05/22/1998 - 01/31/1999 FY98: \$79,000 Total: \$79,000 Prin. Invest.: C JUSTICE Tech. Officer: GSFC/C TUCKER CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAG 5 6584 UNIVERSITY OF VIRGINIA 9688 CARBON CYCLING IN SOUTHERN AFRICAN SAVANNAS 10/31/1997 - 06/30/1998 FY98: \$80,143 Total: \$80,143 Prin. Invest.: H SHUGART Tech. Officer: GSFC/D WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7510 UNIVERSITY OF VIRGINIA 9696 MAGNETIC HYDRODYNAMICS OF THE SOLAR NEBULA 06/01/1998 - 05/31/2001 FY98: \$23,750 Total: \$23,750 Prin. Invest.: S BALBUS Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY |
| NAG 5 6648 UNIVERSITY OF VIRGINIA 9689 ADDING REMOTE SENSING TO THE GLOBAL ENVIRONMENTAL CHANGE PROGRAM AT THE UNIVERSITY OF VIRGINIA 12/04/1997 - 11/30/1998 FY98: \$115,100 Total: \$115,100 Prin. Invest.: C O JUSTICE Tech. Officer: GSFC/M Y WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7625 UNIVERSITY OF VIRGINIA 9697 REACTION WHEEL JITTER REDUCTION THROUGH ACTIVE CONTROL OF MAGNETIC BEARINGS 08/03/1998 - 01/31/1999 FY98: \$28,793 Total: \$28,793 Prin. Invest.: C KNOSPE Tech. Officer: GSFC/G BROWN CASE Category: 45 - ELECTRICAL ENGR |

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| NAG 9 823 UNIVERSITY OF VIRGINIA 9698 MICROGRAVITY SIMULATED PROSTATE CELL CULTURE 09/22/1995 – 09/24/1998 FY98: \$0 Total: \$541,846 <i>Prin. Invest.:</i> L K CHUNG, H E ZHAY, PH.D. <i>Tech. Officer:</i> JSC/N PELLIS CASE Category: 56 – MEDICL | NAGW 4310 UNIVERSITY OF VIRGINIA 9706 CHARGED PARTICLE INDUCED ALTERATIONS OF SURFACES I N THE SOLAR SYSTEM 02/20/1995 – 11/30/1997 FY98: \$0 Total: \$60,000 <i>Prin. Invest.:</i> R JOHNSON <i>Tech. Officer:</i> HQ/H BRINTON CASE Category: 99 – MULTI INTERDISCIPL, OTHER |
| NAGW 461 UNIVERSITY OF VIRGINIA 9699 COLLISIONS OF IMPORTANCE IN THE IO PLASMA TONS 09/01/1983 – 06/30/1997 FY98: \$0 Total: \$639,079 <i>Prin. Invest.:</i> R E JOHNSON <i>Tech. Officer:</i> HQ/J T BERGSTRAHL, HQ/W L QUAIDE CASE Category: 31 – ATMOSPHERIC SCIENCE | NAGW 4431 UNIVERSITY OF VIRGINIA 9707 MAGNETOHYDRODYNAMICS OF THE SOLAR NEBULA 06/08/1995 – 09/30/1997 FY98: \$0 Total: \$112,590 <i>Prin. Invest.:</i> S BALBUS <i>Tech. Officer:</i> HQ/P G ROGERS CASE Category: 11 – ASTRONOMY |
| NAGW 1692 UNIVERSITY OF VIRGINIA 9700 INTELLIGENT PROCESSING OF MATERIALS FOR DESIGN & MANUFACTURING 03/17/1989 – 06/30/1997 FY98: \$0 Total: \$8,879,092 <i>Prin. Invest.:</i> H N WADLEY, T H COURTNEY, J A WERT <i>Tech. Officer:</i> HQ/S L VENNERI, HQ/T CROOKER CASE Category: 47 – METAL & MATERIALS ENGR | NAGW 4588 UNIVERSITY OF VIRGINIA 9708 CARBON CYCLING IN SOUTHERN AFRICAN SAVANNAS: A CO LLABORATIVE PROPOSAL 06/28/1995 – 06/30/1997 FY98: -\$5,172 Total: \$208,739 <i>Prin. Invest.:</i> H SHUGART, C J TUCKER, C JUSTICE <i>Tech. Officer:</i> HQ/D E WICKLAND, HQ/A C JANETOS CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NAGW 3021 UNIVERSITY OF VIRGINIA 9701 ADVANCED COMPUTATIONAL METHODS FOR THE NUMERICAL SOLUTION TO METEOROLOGICAL FLOW PROBLEMS 03/30/1992 – 06/30/1997 FY98: \$0 Total: \$365,000 <i>Prin. Invest.:</i> J J DORNING <i>Tech. Officer:</i> HQ/K H BERGMAN, HQ/R A SCHIFFER CASE Category: 31 – ATMOSPHERIC SCIENCE | NAGW 4997 UNIVERSITY OF VIRGINIA 9709 EROSIONAL PROCESSES ON MARS 03/12/1996 – 02/28/1997 FY98: -\$2,401 Total: \$54,199 <i>Prin. Invest.:</i> A D HOWARD <i>Tech. Officer:</i> HQ/H BRINTON, HQ/J RAHE CASE Category: 13 – PHYSICS |
| NAGW 3954 UNIVERSITY OF VIRGINIA 9702 "CHARGING OF INTERPLANETARY GRAINS" 04/20/1994 – 06/30/1997 FY98: -\$108 Total: \$188,892 <i>Prin. Invest.:</i> R R BARAGIOLA <i>Tech. Officer:</i> HQ/E C WHIPPLE, HQ/J D BOHLIN CASE Category: 13 – PHYSICS | NAGW 5196 UNIVERSITY OF VIRGINIA 9710 VEMAP PHASE II 09/26/1996 – 05/31/1997 FY98: \$0 Total: \$95,808 <i>Prin. Invest.:</i> T M SMITH <i>Tech. Officer:</i> HQ/A C JANETOS, HQ/G ASRAR CASE Category: 39 – ENVIRONMENTAL SCI, OTHER |
| NAGW 4007 UNIVERSITY OF VIRGINIA 9703 SCHOTTKY VARACTOR ELEMENTS FOR NASA 05/14/1994 – 06/30/1997 FY98: \$0 Total: \$228,113 <i>Prin. Invest.:</i> T W CROWE <i>Tech. Officer:</i> HQ/L J CAROFF, HQ/L J CAROFF CASE Category: 11 – ASTRONOMY | NAS 1 20301 UNIVERSITY OF VIRGINIA 9711 MATLS SCIENCE, HIGH PERF NUMERICAL PROCESS'G & NUM AEROSC'S, AEROSP. ENGRG AND OP ANAL & RESEARCH 03/30/1995 – 03/30/1998 FY98: \$0 Total: \$90,776 <i>Prin. Invest.:</i> G L CAHEN, JR. <i>Tech. Officer:</i> LARC/C V ECKSTROM CASE Category: 41 – AERONAUTICAL ENGR |
| NAGW 4106 UNIVERSITY OF VIRGINIA 9704 LOCAL PERSPECTIVE ON GALAXY EVOLUTION 08/09/1994 – 06/30/1997 FY98: \$0 Total: \$192,861 <i>Prin. Invest.:</i> P R O'CONNELL <i>Tech. Officer:</i> HQ/G R RIEGLER CASE Category: 11 – ASTRONOMY | NAS 3 96052 UNIVERSITY OF VIRGINIA 9712 HOTFGM-CYLINDER: COUPLED MICRO-MACROSTRUCTURAL THEORY/ RESPONSE CYLINDRICAL FUNC. TRADED STRUC. COMP. 10/30/1996 – 01/30/1998 FY98: \$0 Total: \$72,942 <i>Prin. Invest.:</i> M PINDER, J ABUNDI <i>Tech. Officer:</i> LERC/S ARNOLD CASE Category: 41 – AERONAUTICAL ENGR |
| NAGW 4294 UNIVERSITY OF VIRGINIA 9705 GROUNDWATER AND PERMAFROST PROCESSED ON MARS 02/22/1995 – 12/31/1996 FY98: -\$1,056 Total: \$50,436 <i>Prin. Invest.:</i> A HOWARD <i>Tech. Officer:</i> HQ/H BRINTON CASE Category: 32 – GEOLOGICAL SCIENCE | NAS 3 97190 UNIVERSITY OF VIRGINIA 9713 HOTFGM CYLINDER A COUPLED MICRO MACROSTRUCTURAL THEORY 10/29/1997 – 10/31/1998 FY98: \$77,721 Total: \$77,721 <i>Prin. Invest.:</i> M PINDER, J ABUNDI <i>Tech. Officer:</i> LERC/S ARNOLD CASE Category: 41 – AERONAUTICAL ENGR |

NCC 1 237 UNIVERSITY OF VIRGINIA **9714**
NASA-VIRGINIA CONSORTIUM OF ENGINEERING & SCIENCE UNIVERSITIES PH.D RESEARCH ASSISTANTSHIP PROGRAM
 07/16/1996 - 07/31/1999 FY98: \$178,208 Total: \$341,823
Prin. Invest.: D CHESTNUTT *Prin. Invest.:* NONE
Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 263 UNIVERSITY OF VIRGINIA **9715**
CENTER FOR ADVANCED COMPUTATIONAL TECHNOLOGY MY 1/3
 08/20/1997 - 09/30/1998 FY98: \$275,001 Total: \$575,001
Prin. Invest.: A K NOORE
Tech. Officer: LARC/J MALONE
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 312 UNIVERSITY OF VIRGINIA **9716**
ANALYSIS OF CORRODENTS WITHIN TI-HONEYCOMB/PETI-5 FACESHEET STRUCTURES
 07/24/1998 - 10/31/1998 FY98: \$30,000 Total: \$30,000
Prin. Invest.: R G KELLY
Tech. Officer: LARC/R S PIASCIK
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 2 925 UNIVERSITY OF VIRGINIA **9717**
PERCEPTION BASED TECHNIQUES FOR IMPROVING COMPUTER-GENERATED IMAGERY
 08/25/1995 - 03/31/1999 FY98: \$0 Total: \$259,524
Prin. Invest.: D R PROFFITT, R PAUSCH
Tech. Officer: ARC/M K KAISER
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 5024 UNIVERSITY OF VIRGINIA **9718**
EFFECTS OF HUMIDITY SWINGS ON ADSORPTION COLUMNS FOR AIR REVITALIZATION: MODELING & EXPERIMENTS
 12/21/1993 - 01/15/1997 FY98: -\$83 Total: \$79,917
Prin. Invest.: M D LE VAN
Tech. Officer: ARC/J E FINN
CASE Category: 43 - CHEMICAL ENGR

NCC 3 532 UNIVERSITY OF VIRGINIA **9719**
SATELLITE TELEMMOGRAPHY NETWORK EXPERIMENT RESEARCH PROJECT
 01/16/1997 - 09/30/1997 FY98: -\$7,186 Total: \$4,814
Prin. Invest.: S J DWYER
Tech. Officer: LERC/D TRAN
CASE Category: 45 - ELECTRICAL ENGR

NCC 3 642 UNIVERSITY OF VIRGINIA **9720**
SATELLITE TELEMMOGRAPHY NETWORK EXPERIMENT RESEARCH PROJECT
 08/24/1998 - 05/16/1999 FY98: \$7,186 Total: \$7,186
Prin. Invest.: S J
Tech. Officer: LERC/R J KERCCZEWSKI
CASE Category: 45 - ELECTRICAL ENGR

NCC 5 79 UNIVERSITY OF VIRGINIA **9721**
MICROGRAVITY NUCLEATION AND PARTICLE COAGULATION EXPERIMENT SUPPORT
 10/06/1994 - 12/31/1998 FY98: \$0 Total: \$91,026
Prin. Invest.: L U LILLELEHT
Tech. Officer: GSFC/J A NUTH, GSFC/J E ALLEN
CASE Category: 11 - ASTRONOMY

NCCW 11 UNIVERSITY OF VIRGINIA **9722**
CENTER FOR COMPUTATIONAL STRUCTURES TECHNOLOGY
 07/12/1990 - 06/30/1997 FY98: \$300,000 Total: \$2,607,955
Prin. Invest.: A K NOOR
Tech. Officer: HQ/S L VENNERI
CASE Category: 49 - ENGINEERING, OTHER

NGT 30241 UNIVERSITY OF VIRGINIA **9723**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/06/1994 - 08/31/1997 FY98: -\$2,748 Total: \$41,252
Prin. Invest.: G HORNBERGER
Tech. Officer: HQ/J S THEON, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 51221 UNIVERSITY OF VIRGINIA **9724**
GRADUATE STUDENT RESEARCHERS PROGRAM
 05/16/1994 - 03/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: J DORNING
Tech. Officer: HQ/A NOVOTNY
CASE Category: 49 - ENGINEERING, OTHER

NGT 51326 UNIVERSITY OF VIRGINIA **9725**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/28/1994 - 02/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: T W CROWE
Tech. Officer: HQ/D HOLLAND
CASE Category: 45 - ELECTRICAL ENGR

NGT 51390 UNIVERSITY OF VIRGINIA **9726**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/23/1995 - 05/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: P W VOORHEES
Tech. Officer: HQ/G LESANE
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 51396 UNIVERSITY OF VIRGINIA **9727**
GSRP
 06/23/1995 - 03/30/1998 FY98: -\$8,499 Total: \$35,501
Prin. Invest.: T W CROWE
Tech. Officer: J P/C HICKS
CASE Category: 45 - ELECTRICAL ENGR

NGT 70404 UNIVERSITY OF VIRGINIA **9728**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 11/07/1994 - 11/31/1997 FY98: -\$712 Total: \$65,288
Prin. Invest.: W A JESSER
Tech. Officer: HQ/D K RUSSELL
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 1 52100 UNIVERSITY OF VIRGINIA **9729**
GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 06/13/1995 - 04/31/1998 FY98: \$12,000 Total: \$66,000
Prin. Invest.: B L FARMER, J A YOUNG
Tech. Officer: LARC/J A HINKLEY, LARC/T S GATES
CASE Category: 12 - CHEMISTRY

NGT 1 52101 UNIVERSITY OF VIRGINIA **9730**
GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 06/13/1995 - 06/30/1998 FY98: -\$17,045 Total: \$26,956
Prin. Invest.: E A WEST, A S GRIMSHAW
Tech. Officer: LARC/D RUDY, LARC/J REHDER
CASE Category: 22 - COMPUTER SCIENCE

NGT 1 52110 UNIVERSITY OF VIRGINIA **9731**
GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 06/26/1995 – 09/30/1998 FY98: \$12,000 Total: \$66,000
Prin. Invest.: E A THORNTON
Tech. Officer: LARC/M D RHODES
CASE Category: 42 – ASTRONAUTICAL ENGR

NGT 1 52116 UNIVERSITY OF VIRGINIA **9732**
GRADUATE STUDENT RESEARCHER PROGRAM
 06/27/1995 – 10/31/1997 FY98: –\$1 Total: \$44,000
Prin. Invest.: E DERVIS
Tech. Officer: LARC/R R ANTCLIFF
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52117 UNIVERSITY OF VIRGINIA **9733**
GRADUATE STUDENT RESEARCHER PROGRAM
 06/27/1995 – 08/10/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: L P TROEGER
Tech. Officer: LARC/T T BALES
CASE Category: 47 – METAL & MATERIALS ENGR

NGT 1 52187 UNIVERSITY OF VIRGINIA **9734**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/04/1998 – 08/14/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: C T HEROKOVICH
Tech. Officer: LARC/J H STORRIES
CASE Category: 31 – ATMOSPHERIC SCIENCE

NGT 2 52203 UNIVERSITY OF VIRGINIA **9735**
EFFECTS OF CABIN UPSETS ON ABSORPTION COLUMNS FOR AIR REVITALIZATION: MODELING & EXPERIMENTS
 09/14/1995 – 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: M D LEVAN, W S APPE
Tech. Officer: ARC/J E FINN
CASE Category: 43 – CHEMICAL ENGR

NGT 3 52315 UNIVERSITY OF VIRGINIA **9736**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/01/1996 – 06/30/1999 FY98: \$36,667 Total: \$66,000
Prin. Invest.: J M HOWE
Tech. Officer: LERC/D MONTEGANI
CASE Category: 47 – METAL & MATERIALS ENGR

NGT 5 50062 UNIVERSITY OF VIRGINIA **9737**
APPROACHES FOR IMPROVING ACCESS TO NASA'S SCIENTIF
 08/04/1997 – 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: J FRENCH
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 5 50118 UNIVERSITY OF VIRGINIA **9738**
FABRICATION OF PLANARGAAS SCHOTTKY MIXER DIODES FO S
 09/06/1997 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: T W CROWE
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 1 343 VA POLYTECHNIC INST & ST UNIV **9739**
NASA MATERIALS SCIENCE AND ENGINEERING PROGRAM
 03/04/1983 – 08/31/1997 FY98: \$0 Total: \$9,642,870
Prin. Invest.: F W STEPHENSON
Tech. Officer: LARC/D R TENNEY, LARC/R T SWANN
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 1 537 VA POLYTECHNIC INST & ST UNIV **9740**
POSTBUCKLING & CRIPPLING OF GRAPHITE-EPOXY CHANNEL & ZEESECTION COLUMNS
 10/31/1984 – 12/31/1997 FY98: \$9,995 Total: \$557,511
Prin. Invest.: E R JOHNSON
Tech. Officer: LARC/J H STARNES, JR
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 643 VA POLYTECHNIC INST & ST UNIV **9741**
DESIGN OF ANISOTROPIC PLATES FOR IMPROVED DAMAGE TOLERANCE
 02/12/1986 – 05/30/1998 FY98: \$18,309 Total: \$588,458
Prin. Invest.: Z GURDAL
Tech. Officer: LARC/J H STARNES, LARC/M J SHUART
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1160 VA POLYTECHNIC INST & ST UNIV **9742**
VARIABLE COMPLEXITY DESIGN STRATEGY APPLIED TO SUPERSONIC WING DESIGN.
 06/26/1990 – 10/15/1997 FY98: –\$1 Total: \$400,768
Prin. Invest.: B GROSSMAN, W MASON, R HAFTKA
Tech. Officer: LARC/P G COEN
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1449 VA POLYTECHNIC INST & ST UNIV **9743**
AIRPLANE CONTROL ALLOCATION STUDY – NLPN 92-435
 08/07/1992 – 08/06/1998 FY98: \$0 Total: \$422,906
Prin. Invest.: W C DURHAM
Tech. Officer: LARC/J V FOSTER
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1539 VA POLYTECHNIC INST & ST UNIV **9744**
FLOW STRUCTURE GENERATED BY PERPENDICULAR BLADE VO RTEX INTERACTION AND IMPLICATIONS FOR HELICOPTER
 10/21/1993 – 01/18/1997 FY98: –\$10,291 Total: \$197,364
Prin. Invest.: W J DEVENPORT, S A GLEGG
Tech. Officer: LARC/T F BROOKS, LARC/C L BURTLEY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1562 VA POLYTECHNIC INST & ST UNIV **9745**
VARIABLE-COMPLEXITY MULTIDISCIPLINARY OPTIMIZATION ON PARALLEL COMPUTERS
 12/07/1993 – 12/31/1997 FY98: \$0 Total: \$599,522
Prin. Invest.: B GROSSMAN, R T HAFTKA, W H MASON
Tech. Officer: LARC/P A NEWMAN, LARC/P G COEM
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1573 VA POLYTECHNIC INST & ST UNIV **9746**
FLIGHT CONTROL REQUIREMENTS FOR HIGH SPEED TRANSPORT AIRCRAFT
 01/13/1994 – 02/15/1997 FY98: –\$76 Total: \$246,147
Prin. Invest.: M R ANDERSON, W H MASON
Tech. Officer: LARC/M R WASZAK, LARC/C S BUTTRILL
CASE Category: 41 – AERONAUTICAL ENGR

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| NAG 1 1622 VA POLYTECHNIC INST & ST UNIV 9747 DETERMINATION OF STRESS INTENSITY FACTOR DISTRIBUTIONS FOR INTERFACE CRACKS IN INCOMPRESSIB 05/20/1994 - 12/31/1997 FY98: -\$1 Total: \$77,497 Prin. Invest.: C W SMITH Tech. Officer: LARC/C E HARRIS, LARC/J C NEWMAN CASE Category: 46 - MECHANICAL ENGR | NAG 1 1811 VA POLYTECHNIC INST & ST UNIV 9755 DEVELOPMENT OF AN ADJOINT-VARIABLE METHOD FOR UNST RUC-TURED CFI TOOLS 04/01/1996 - 08/15/1997 FY98: -\$1 Total: \$34,617 Prin. Invest.: R W WALTERS Tech. Officer: LARC/J L THOMAS CASE Category: 41 - AERONAUTICAL ENGR |
| NAG 1 1657 VA POLYTECHNIC INST & ST UNIV 9748 12 INCH ACOUSTIC FAN RESEARCH 12/07/1994 - 05/20/1998 FY98: \$10,692 Total: \$276,872 Prin. Invest.: R H THOMAS Tech. Officer: LARC/C H GERHOLD CASE Category: 46 - MECHANICAL ENGR | NAG 1 1821 VA POLYTECHNIC INST & ST UNIV 9756 INVESTIGATION OF A SYSTEM FOR INFLIGHT MONITORING OF AERODY-NAMIC PERFORMED 04/09/1996 - 05/15/1997 FY98: -\$1 Total: \$29,925 Prin. Invest.: J A SCHETZ Tech. Officer: LARC/R W WLEZEIN CASE Category: 41 - AERONAUTICAL ENGR |
| NAG 1 1681 VA POLYTECHNIC INST & ST UNIV 9749 STRUCTURAL ACOUSTIC CHARACTERISTICS OF AIRCRAFT AND ACTIVE CONTROL FOR INTERIOR NOISE REDUCTION 01/23/1995 - 05/22/1998 FY98: \$32,415 Total: \$618,137 Prin. Invest.: C R FULLER Tech. Officer: LARC/H C LESTER, LARC/R J SILOX CASE Category: 41 - AERONAUTICAL ENGR | NAG 1 1851 VA POLYTECHNIC INST & ST UNIV 9757 AIRCRAFT NONLINEAR DYNAMICS STUDIES 06/26/1996 - 07/31/1998 FY98: \$0 Total: \$152,035 Prin. Invest.: F H LUTZE, W H MASON Tech. Officer: LARC/J V FOSTER CASE Category: 41 - AERONAUTICAL ENGR |
| NAG 1 1682 VA POLYTECHNIC INST & ST UNIV 9750 THE EVOLUTION OF AN ACOUSTIC DISTURBANCE UP TO TRANSITION IN THE BOUNDARY LAYER ON AN AIRFOIL 01/13/1995 - 08/31/1998 FY98: \$25,340 Total: \$119,667 Prin. Invest.: J A SCHETZ Tech. Officer: LARC/R WLEZEIN, LARC/A KUMAR CASE Category: 41 - AERONAUTICAL ENGR | NAG 1 1852 VA POLYTECHNIC INST & ST UNIV 9758 MULTIDISCIPLINARY DESIGN INVESTIGATION OF TRUSS-BRACED AIR-CRAFT 06/27/1996 - 06/26/1999 FY98: \$100,000 Total: \$300,001 Prin. Invest.: B CROSSMAN, R K KAPANIA, W H MASON Tech. Officer: LARC/S C ASBURY, LARC/B L BERRIER CASE Category: 41 - AERONAUTICAL ENGR |
| NAG 1 1683 VA POLYTECHNIC INST & ST UNIV 9751 DIAGNOSTICS AND ACTIVE CONTROL OF AIRCRAFT NOISE 01/12/1995 - 05/15/1998 FY98: \$26,305 Total: \$334,626 Prin. Invest.: C R FULLER Tech. Officer: LARC/K H LYLE, LARC/R J SILOX CASE Category: 46 - MECHANICAL ENGR | NAG 1 1881 VA POLYTECHNIC INST & ST UNIV 9759 RESIN FILM INFUSION (RFI) PROCESS MODELING FOR LARGE TRANS-PORT AIRCRAFT WING STRUCTURES 11/22/1996 - 12/09/1998 FY98: \$150,000 Total: \$312,187 Prin. Invest.: V C LOOS Tech. Officer: LARC/H B DEXTTER CASE Category: 47 - METAL & MATERIALS ENGR |
| NAG 1 1689 VA POLYTECHNIC INST & ST UNIV 9752 NON-LINEAR MODELING AND STABILITY ANALYSES OF ANISOTROPIC SANDWICH PANELS EXPOSED TO COMPLEX 02/06/1995 - 02/05/1998 FY98: \$0 Total: \$111,663 Prin. Invest.: L LIBRESCU Tech. Officer: LARC/C J CAMARDA, LARC/M L BLOSSER CASE Category: 42 - ASTRONAUTICAL ENGR | NAG 1 1884 VA POLYTECHNIC INST & ST UNIV 9760 EFFICIENT ANALYSIS OF COMPLEX STRUCTURES USING NEURAL NET-WORKS 12/17/1996 - 12/31/1998 FY98: \$25,000 Total: \$75,944 Prin. Invest.: R K KAPANIA Tech. Officer: LARC/J T WANG CASE Category: 46 - MECHANICAL ENGR |
| NAG 1 1737 VA POLYTECHNIC INST & ST UNIV 9753 DYNAMIC WIND TUNNEL TESTS MY 1/3 07/13/1995 - 09/30/1998 FY98: \$0 Total: \$445,962 Prin. Invest.: F H LUTZE Tech. Officer: LARC/S B GRAFTON CASE Category: 41 - AERONAUTICAL ENGR | NAG 1 1895 VA POLYTECHNIC INST & ST UNIV 9761 THE NASA-VIRGINIA TECH COMPOSITE PROGRAM: INVESTIGATION OF COMPOSITE STRUCTURES 01/29/1997 - 03/31/1999 FY98: \$48,981 Total: \$116,794 Prin. Invest.: H W HYER Tech. Officer: LARC/J H STAMES CASE Category: 41 - AERONAUTICAL ENGR |
| NAG 1 1801 VA POLYTECHNIC INST & ST UNIV 9754 TURBULENCE MEASUREMENTS AND COMPUTATIONS FOR THE PREDIC-TION OF BROADBAND NOISE IN HIGH BYPASS 01/30/1996 - 01/31/2000 FY98: \$131,482 Total: \$337,817 Prin. Invest.: W J DEVENPORT, J MOORE Tech. Officer: LARC/J W POSER, LARC/C H GERHOLD CASE Category: 41 - AERONAUTICAL ENGR | NAG 1 1912 VA POLYTECHNIC INST & ST UNIV 9762 MICROCRACKING OF MATERIALS FOR SPACE 04/01/1997 - 05/15/1998 FY98: \$0 Total: \$12,186 Prin. Invest.: N HYES Tech. Officer: LARC/H G MAAHS CASE Category: 31 - ATMOSPHERIC SCIENCE |

NAG 1 1942 VA POLYTECHNIC INST & ST UNIV **9763**
TURBULENCE IN HELICOPTER ROTOR FLOWS AND THE MECHANISM OF NOISE PRODUCTION
 06/04/1997 - 06/03/1999 FY98: \$90,418 Total: \$155,418
Prin. Invest.: W J DEVENPORT
Tech. Officer: LARC/C L BURLEY, LARC/T F BROOKS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1958 VA POLYTECHNIC INST & ST UNIV **9764**
IMPROVED CERES TOP-OF-THE-ATMOSPHERE, AND SURFACE RADIATIVE FLUXES
 08/05/1997 - 09/30/1998 FY98: \$69,561 Total: \$82,751
Prin. Invest.: J R MAHAN, P W STACKHOUSE, M A HAEFFELIN
Tech. Officer: LARC/B A WIELICKI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1959 VA POLYTECHNIC INST & ST UNIV **9765**
EARTH RADIATION MEASUREMENT SCIENCE MY 1/3
 08/05/1997 - 08/15/2000 FY98: \$101,055 Total: \$121,830
Prin. Invest.: G L SMITH, J R MAHAN
Tech. Officer: LARC/R B LEE, III, LARC/R L HUFFMAN, JR.
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1970 VA POLYTECHNIC INST & ST UNIV **9766**
CERES VALIDATION USING CERES ERBE-LIKE AND CERES TISA DATA
 09/12/1997 - 09/30/1998 FY98: \$51,233 Total: \$61,233
Prin. Invest.: J R MAHON
Tech. Officer: LARC/D F YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1973 VA POLYTECHNIC INST & ST UNIV **9767**
FORMATION OF IRON NANOPHASES IN POLYMERIC MATRICES VIA SUPERCRITICAL INFUSION
 10/20/1997 - 10/31/1998 FY98: \$40,000 Total: \$40,000
Prin. Invest.: L T TAYLOR
Tech. Officer: LARC/D M STOAKLEY, LARC/A K ST. CLAIR
CASE Category: 12 - CHEMISTRY

NAG 1 1980 VA POLYTECHNIC INST & ST UNIV **9768**
HERSCHEL-QUINCKE TUBE CONCEPT APPLIED TO THE REDUCTION OF ENGINE INLET NOISE
 12/19/1997 - 12/18/1998 FY98: \$50,616 Total: \$50,616
Prin. Invest.: R A BURDISO
Tech. Officer: LARC/C H GERHOLD, LARC/J W POSEY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 1998 VA POLYTECHNIC INST & ST UNIV **9769**
PRINCIPLES OF PIEZOCERAMIC DEVICES MY 1/2
 02/01/1998 - 01/31/1999 FY98: \$42,000 Total: \$42,000
Prin. Invest.: D J INMAN
Tech. Officer: LARC/P H MIRICK
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2001 VA POLYTECHNIC INST & ST UNIV **9770**
ACTIVE CONTROL OF NOISE FROM TURBOFAN ENGINES USING WAVE-NUMBER AND FAR-FIELD SENSORS.
 01/29/1998 - 02/01/1999 FY98: \$155,276 Total: \$155,276
Prin. Invest.: R A BURDISO, C R FULLER
Tech. Officer: LARC/C H GERHOLD, LARC/J W POSEY
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2035 VA POLYTECHNIC INST & ST UNIV **9771**
COMPRESSION STRENGTH OF COMPOSITE PRIMARY STRUCTURAL COMPONENTS
 04/30/1998 - 01/31/1999 FY98: \$63,200 Total: \$63,200
Prin. Invest.: E R JOHNSON
Tech. Officer: LARC/J H STARNES, LARC/L E JONES
CASE Category: 41 - AERONAUTICAL ENGR

NAG 1 2053 VA POLYTECHNIC INST & ST UNIV **9772**
HUMAN POWERED SUBMARINE PROJECT SUPPORT
 04/10/1998 - 02/15/1999 FY98: \$2,000 Total: \$2,000
Prin. Invest.: L L NEU
Tech. Officer: LARC/G L EARLEY
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 2094 VA POLYTECHNIC INST & ST UNIV **9773**
INVESTIGATION OF NEXT-GENERATION EARTH RADIATION BUDGET RADIOMETRY
 07/24/1998 - 10/31/1998 FY98: \$47,903 Total: \$47,903
Prin. Invest.: J R MAHAN
Tech. Officer: LARC/R B LEE, III, LARC/R L HUFFMAN, JR.
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2106 VA POLYTECHNIC INST & ST UNIV **9774**
EVALUATION AND IMPROVEMENT OF EARTH RADIATION BUDGET DATA SETS
 09/17/1998 - 09/30/2001 FY98: \$13,000 Total: \$13,000
Prin. Invest.: M P HAEFFELIN, NONE
Tech. Officer: LARC/D F YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 2111 VA POLYTECHNIC INST & ST UNIV **9775**
AIRPLANE CONTROL ALLOCATION STUDY
 09/16/1998 - 08/06/1999 FY98: \$99,500 Total: \$99,500
Prin. Invest.: W C DURHAM
Tech. Officer: LARC/J V FOSTER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 919 VA POLYTECHNIC INST & ST UNIV **9776**
LANDING GEAR INTEGRATION IN AIRCRAFT CONCEPTUAL DESIGN
 07/19/1994 - 09/30/1996 FY98: -\$9,628 Total: \$89,780
Prin. Invest.: W H MASON
Tech. Officer: ARC/P A GELHAUSEN, ARC/S HASAN
CASE Category: 41 - AERONAUTICAL ENGR

NAG 2 1180 VA POLYTECHNIC INST & ST UNIV **9777**
DESIGN SPACE EXPLORATION FOR MDO ON A TERAFLAP COMPUTER
 02/26/1998 - 01/31/1999 FY98: \$33,209 Total: \$33,209
Prin. Invest.: B GROSSMAN, L T WATSON, W H MASON
Tech. Officer: ARC/G H KLOPETER
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1539 VA POLYTECHNIC INST & ST UNIV **9778**
AEROACOUSTICS OF A TWO-DIMENSIONAL DIVERGENT SUPERSONIC INLET
 09/28/1993 - 12/14/1997 FY98: \$0 Total: \$479,105
Prin. Invest.: W NG
Tech. Officer: LERC/R P WOODWARD
CASE Category: 41 - AERONAUTICAL ENGR

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| <p>NAG 3 1562 VA POLYTECHNIC INST & ST UNIV 9779 CHARACTERIZATION & DEVELOPMENT OF THIN FILM HEAT F LUX SENSORS 01/14/1994 - 03/14/1997 FY98: \$0 Total: \$215,000 <i>Prin. Invest.:</i> S B DESU <i>Tech. Officer:</i> LERC/G C FRALICK CASE Category: 47 - METAL & MATERIALS ENGR</p> | <p>NAG 3 2191 VA POLYTECHNIC INST & ST UNIV 9787 TRAILING EDGE BLOWING IN INLET GUIDE VANES TO REDUCE NOISE 08/14/1998 - 10/22/1999 FY98: \$55,000 Total: \$55,000 <i>Prin. Invest.:</i> V I NG <i>Tech. Officer:</i> LERC/R P WOODWARD CASE Category: 41 - AERONAUTICAL ENGR</p> |
| <p>NAG 3 1667 VA POLYTECHNIC INST & ST UNIV 9780 ADVANCED DYNAMICS SIMULATIONS 09/22/1994 - 03/21/1998 FY98: \$0 Total: \$128,844 <i>Prin. Invest.:</i> W F OBRIEN <i>Tech. Officer:</i> LERC/A R OWEN CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NAG 3 2194 VA POLYTECHNIC INST & ST UNIV 9788 AEROACOUSTICS OF SUPERSONIC INLETS AEROACOUSTICS OF SUPERSONIC INLETS 08/21/1998 - 05/31/1999 FY98: \$31,250 Total: \$31,250 <i>Prin. Invest.:</i> W NG <i>Tech. Officer:</i> LERC/R P WOODWARD CASE Category: 41 - AERONAUTICAL ENGR</p> |
| <p>NAG 3 2031 VA POLYTECHNIC INST & ST UNIV 9781 NOVEL CONDUCTING OXIDE MATERIALS FOR HIGH TEMPERATURE SENSOR APPLICATIONS 04/08/1997 - 01/15/1998 FY98: \$0 Total: \$53,000 <i>Prin. Invest.:</i> S B DESU <i>Tech. Officer:</i> LERC/G C FRALICK CASE Category: 47 - METAL & MATERIALS ENGR</p> | <p>NAG 4 141 VA POLYTECHNIC INST & ST UNIV 9789 SKIN FRICTION MEASUREMENTS SKIN FRICTION MEASUREMENTS 11/24/1997 - 05/30/1998 FY98: \$65,000 Total: \$65,000 <i>Prin. Invest.:</i> J A SCHETZ <i>Tech. Officer:</i> D FRC/T BUI CASE Category: 41 - AERONAUTICAL ENGR</p> |
| <p>NAG 3 2061 VA POLYTECHNIC INST & ST UNIV 9782 AEROACOUSTICS OF SUPERSONIC INLETS 08/11/1997 - 12/31/1998 FY98: \$80,000 Total: \$150,000 <i>Prin. Invest.:</i> W F NG <i>Tech. Officer:</i> LERC/R P WOODWARD CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NAG 5 5099 VA POLYTECHNIC INST & ST UNIV 9790 UNDERSTANDING SIGMA NAUGHT BLOOMS AND THEIR EFFECTS ON RADAR ALTIMETERS 12/11/1996 - 11/30/1998 FY98: \$34,200 Total: \$68,000 <i>Prin. Invest.:</i> G E BROWN <i>Tech. Officer:</i> G SFC/G E KAYNE CASE Category: 33 - OCEANOGRAPHY</p> |
| <p>NAG 3 2093 VA POLYTECHNIC INST & ST UNIV 9783 AN INTEGRATED SYSTEMS APPROACH TOWARDS ACTIVE CONTROL OF THERMO-ACOUSTIC INSTABILITIES 12/15/1997 - 10/31/2000 FY98: \$95,744 Total: \$95,744 <i>Prin. Invest.:</i> U VANDSBURGER, W R SAUNDERS, B GANESHAN <i>Tech. Officer:</i> LERC/J E MAY CASE Category: 49 - ENGINEERING, OTHER</p> | <p>NAG 5 6539 VA POLYTECHNIC INST & ST UNIV 9791 THE VIRGINIA TECH CENTER FOR ENVIRONMENTAL APPLICATIONS OF REMOTESENSING (CEARS) 10/24/1997 - 03/31/1999 FY98: \$419,256 Total: \$419,256 <i>Prin. Invest.:</i> R F WYNNE <i>Tech. Officer:</i> G SFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 3 2098 VA POLYTECHNIC INST & ST UNIV 9784 ACTIVE & PASSIVE BLADE VIBRATION CONTROL USING MEMS 12/22/1997 - 11/30/2000 FY98: \$95,569 Total: \$95,569 <i>Prin. Invest.:</i> W NG <i>Tech. Officer:</i> LERC/O MEHMED, LERC/G L STEFKO CASE Category: 46 - MECHANICAL ENGR</p> | <p>NAG 5 7657 VA POLYTECHNIC INST & ST UNIV 9792 MODELING AND SIMULATION OF FORMATION FLYING 09/02/1998 - 08/11/1999 FY98: \$36,931 Total: \$36,931 <i>Prin. Invest.:</i> C D HALL <i>Tech. Officer:</i> GS/C/D C FOLTA CASE Category: 42 - ASTRONAUTICAL ENGR</p> |
| <p>NAG 3 2100 VA POLYTECHNIC INST & ST UNIV 9785 DURABILITY OF CERAMIC MATRIX COMPOSITES AT HIGH TEMPERATURES: EXPERIMENTAL STUDIES & PROTECTIVE MO 01/06/1998 - 11/20/2000 FY98: \$63,989 Total: \$63,989 <i>Prin. Invest.:</i> W A CURTIN <i>Tech. Officer:</i> LERC/M H JASKOWIAK CASE Category: 47 - METAL & MATERIALS ENGR</p> | <p>NAGW 4241 VA POLYTECHNIC INST & ST UNIV 9793 ADVANCED DESIGN PROGRAM 01/27/1995 - 12/1/1996 FY98: -\$1,141 Total: \$16,209 <i>Prin. Invest.:</i> A J KUBOWSKI <i>Tech. Officer:</i> HQ A S MCGEE CASE Category: 49 - ENGINEERING, OTHER</p> |
| <p>NAG 3 2184 VA POLYTECHNIC INST & ST UNIV 9786 INVESTIGATION FOR IMPROVED DYNAMIC STAGE CHARACTERISTICS 08/03/1998 - 12/31/1998 FY98: \$49,500 Total: \$49,500 <i>Prin. Invest.:</i> W F O'BRIEN <i>Tech. Officer:</i> LERC/A OWEN CASE Category: 41 - AERONAUTICAL ENGR</p> | <p>NAS 1 19610 VA POLYTECHNIC INST & ST UNIV 9794 RESEARCH IN AERODYNAMICS, CHEMISTRY, INSTRUMENTATION, AND OTHER FIELDS 07/24/1992 - 07/23/1998 FY98: \$34,983 Total: \$3,392,441 <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> LERC/E J PRIOR CASE Category: 49 - MULTI INTERDISCIPL, OTHER</p> |

NCC 1 221 VA POLYTECHNIC INST & ST UNIV **9795**
THERMAL CHARACTERIZATION OF AEROSPACE STRUCTURES
 01/24/1996 – 07/24/1998 FY98: \$11,323 Total: \$124,274
Prin. Invest.: E P SCOTT
Tech. Officer: LARC/K J DARYABEIGI
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 243 VA POLYTECHNIC INST & ST UNIV **9796**
ANALYTICAL SUPPORT OF CALIBRATION AND DATE REDUCTION PROTOCOLS FOR EARTH RADIATION BUDGET
 08/21/1996 – 04/30/1998 FY98: \$41,219 Total: \$312,697
Prin. Invest.: J R MAHAN
Tech. Officer: LARC/R BENJAMIN LEE, III, LARC/R L HUFFMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 1 245 VA POLYTECHNIC INST & ST UNIV **9797**
AERODYNAMIC INTERACTION EFFECTS OF A HELICOPTER ROTOR AND FUSELAGE
 10/30/1996 – 10/31/1998 FY98: \$84,476 Total: \$164,919
Prin. Invest.: R W BARNWELL, D D BOYD, JR.
Tech. Officer: LARC/S A GORTON, LARC/J D BERRY
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 279 VA POLYTECHNIC INST & ST UNIV **9798**
PRACTICAL AERODYNAMIC DESIGN OPTIMIZATION BASED ON NAVIER STOKES EQUATIONS & DISCRETE ADJOINT METHOD
 03/05/1998 – 11/04/1998 FY98: \$30,228 Total: \$30,228
Prin. Invest.: B GROSSMAN
Tech. Officer: LARC/W K ANDERSON
CASE Category: 41 – AERONAUTICAL ENGR

NCC 1 282 VA POLYTECHNIC INST & ST UNIV **9799**
HYBRID ACTIVE-PASSIVE SYSTEMS FOR CONTROL OF AIRCRAFT INTERIOR NOISE
 03/13/1998 – 01/15/1999 FY98: \$120,000 Total: \$120,000
Prin. Invest.: C R FULLER
Tech. Officer: LARC/D L PALUMBO
CASE Category: 46 – MECHANICAL ENGR

NCC 1 304 VA POLYTECHNIC INST & ST UNIV **9800**
INVESTIGATION OF THE DEFLECTION RESPONSE OF PIEZOCERAMIC DEVICES
 06/03/1998 – 05/15/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: M W HYER
Tech. Officer: LARC/S A WISE, LARC/W C VAUGHN
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 2 5097 VA POLYTECHNIC INST & ST UNIV **9801**
AEROELASTIC ANALYSIS OF MODERN COMPLEX WINGS USING ENSAERO AND NASTRAN
 08/29/1994 – 07/31/1997 FY98: \$0 Total: \$80,000
Prin. Invest.: R K KAPANIA
Tech. Officer: ARC/G P GURUSWAMY
CASE Category: 41 – AERONAUTICAL ENGR

NGT 10025 VA POLYTECHNIC INST & ST UNIV **9802**
NGT 10025/B VA. POLYT. INST. (MDAFP) 10/1/93 START
 11/22/1993 – 10/31/1996 FY98: -\$3,518 Total: \$237,928
Prin. Invest.: B GROSSMAN, R T HAFTKA, W H MASON
Tech. Officer: HQ/G S SEIDEL, HQ/J R FACEY
CASE Category: 41 – AERONAUTICAL ENGR

NGT 51709 VA POLYTECHNIC INST & ST UNIV **9803**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/20/1996 – 06/30/1997 FY98: -\$26 Total: \$21,974
Prin. Invest.: R W BARNWELL
Tech. Officer: HQ/A NURRIDIN
CASE Category: 41 – AERONAUTICAL ENGR

NGT 70399 VA POLYTECHNIC INST & ST UNIV **9804**
GRADUATE STUDENT RESEARCHERS PROGRAM (UMDF)
 07/15/1994 – 07/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: C R FULLER
Tech. Officer: LARC/R L YANG
CASE Category: 46 – MECHANICAL ENGR

NGT 1 52107 VA POLYTECHNIC INST & ST UNIV **9805**
GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)
 06/15/1995 – 06/30/1999 FY98: \$22,000 Total: \$76,001
Prin. Invest.: J L BURT, A M PRESTRUDE
Tech. Officer: LARC/A T POPE, LARC/J R COMSTOCK, JR.
CASE Category: 69 – PSYCHOLOGY, OTHER

NGT 1 52112 VA POLYTECHNIC INST & ST UNIV **9806**
GRADUATE STUDENT RESEARCHER PROGRAM
 06/19/1995 – 06/30/1999 FY98: \$22,000 Total: \$76,000
Prin. Invest.: M W HYER
Tech. Officer: LARC/J H STARNES, JR.
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52145 VA POLYTECHNIC INST & ST UNIV **9807**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 07/11/1996 – 08/14/1999 FY98: \$22,000 Total: \$66,001
Prin. Invest.: D M MOORE, PH.D.
Tech. Officer: LARC/R A HATHAWAY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52155 VA POLYTECHNIC INST & ST UNIV **9808**
NASA MDA FELLOWSHIP PROGRAM MDA FELLOWSHIP PROGRAM
 01/24/1997 – 11/30/1998 FY98: \$206,874 Total: \$380,930
Prin. Invest.: B GROSSMAN
Tech. Officer: LARC/J BARTHELEMY
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 1 52161 VA POLYTECHNIC INST & ST UNIV **9809**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/28/1997 – 06/30/1998 FY98: -\$11,776 Total: \$10,224
Prin. Invest.: J Y BEST
Tech. Officer: LARC/M D CANRIGHT
CASE Category: 41 – AERONAUTICAL ENGR

NGT 1 52174 VA POLYTECHNIC INST & ST UNIV **9810**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/29/1997 – 06/30/1999 FY98: \$22,000 Total: \$32,000
Prin. Invest.: J A NEWMAN
Tech. Officer: LARC/R S PIASCLK
CASE Category: 49 – ENGINEERING, OTHER

NGT 1 52184 VA POLYTECHNIC INST & ST UNIV **9811**
GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)
 05/12/1998 – 06/30/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: J BURTON
Tech. Officer: LARC/J M SEATON
CASE Category: 31 – ATMOSPHERIC SCIENCE

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| NGT 1 52202 | VA POLYTECHNIC INST & ST UNIV | 9812 |
| GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) | | |
| 09/01/1998 - 06/30/1999 | FY98: \$10,000 | Total: \$10,000 |
| <i>Prin. Invest.:</i> J R MOHAN | | |
| <i>Tech. Officer:</i> LARC/M HENDERSON | | |
| <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | | |

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| NGT 3 52304 | VA POLYTECHNIC INST & ST UNIV | 9813 |
| GRADUATE STUDENT RESEARCH PROGRAM | | |
| 07/20/1995 - 08/15/1998 | FY98: \$14,000 | Total: \$66,000 |
| Prin. Invest.: U VANDSBURGER | | |
| Tech. Officer: LERC/L SHAW | | |
| CASE Category: 46 - MECHANICAL ENGR | | |

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| NGT 5 70005 | VA POLYTECHNIC INST & ST UNIV | 9814 |
| TURBINE AERODYNAMICS AND HEAT TRANSFER | | |
| 09/05/1997 - 03/31/1998 | FY98: \$0 | Total: \$16,500 |
| <i>Prin. Invest.: W REID</i> | | |
| <i>Tech. Officer: HQ/M STOUTSENBERGER</i> | | |
| <i>CASE Category: 46 - MECHANICAL ENGR</i> | | |

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| NGT 5 70008 | VA POLYTECHNIC INST & ST UNIV | 9815 |
| GRADUATE STUDENTS RESEARCH PROGRAM - STUDENTS: TE | | |
| 09/12/1997 - 11/15/1997 | FY98: -\$16,500 | Total: \$0 |
| <i>Prin. Invest.:</i> D NG | | |
| <i>Tech. Officer:</i> GSFC/M STOUTSENBERGER | | |
| <i>CASE Category:</i> 49 - ENGINEERING, OTHER | | |

NGT 5 90011 **VA POLYTECHNIC INST & ST UNIV** **9816**
NASA UNDERGRADUATE SCHOLAR AWARDS FOR RESEARCH (US
 12/19/1996 - 08/14/1998 FY98: \$0 Total: \$64,000
Prin. Invest.: J NOTTINGHAM
Tech. Officer: GSFC/R LAWRENCE
CASE Category: 43 - CHEMICAL ENGR

NAG 8 1276 VIRGINIA COMMONWEALTH UNIVERSITY **9817**
STUDIES ON POLYMERIZATION AND NANOPARTICLE COMPOSITES
 04/25/1996 - 04/30/2000 FY98: \$92,083 Total: \$219,583
Prin. Invest.: S EL-SHALL
Tech. Officer: MSFC/D R WOODARD, MSFC/B G PENN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1484 VIRGINIA COMMONWEALTH UNIVERSITY **9818**
R/S GAS PHASE POLYMERIZATION AND NUCLEATION EXPERIMENTS IN
MICROGRAVITY
 02/01/1998 - 01/31/2002 FY98: \$80,000 Total: \$80,000
Pnn. Invest.: M S EL-SHALL
Tech. Officer: MSFC/C TALLEY
CASE Category: 12 - CHEMISTRY

NAS 9 19539 VIRGINIA COMMONWEALTH UNIVERSITY **9819**
NEUROLAB EXPERIMENT DOCUMENT FOR E-049
 02/22/1996 - 09/30/1999 FY98: \$271,000 Total: \$611,000
Prin. Invest.: D ECKBURG
Tech. Officer: JSC/A LEE
CASE Category: 56 - MEDICL

NAS 9 19541 VIRGINIA COMMONWEALTH UNIVERSITY **9820**
AUTONOMIC MECHANISMS DURING PROLONGED WEIGHTLESSNESS
 03/14/1996 - 12/15/1999 FY98: \$187,000 Total: \$571,700
Prin. Invest.: H B CHERMSIDE
Tech. Officer: JSC/C M BUNTIN
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NCC 3 645 VIRGINIA COMMONWEALTH UNIVERSITY **9821**
INVESTIGATION OF BOUNDARY LAYER DEVELOPMENT I LOW- PRESSURE
TURBINE STAGES
 09/03/1998 - 09/30/1998 FY98: \$2,000 Total: \$2,000
Prin. Invest.: (U) J DORNEY
Tech. Officer: LERC/D E ASHPIS
CASE Category: 41 - AERONAUTICAL ENGR

NGT 5 90029 VIRGINIA COMMONWEALTH UNIVERSITY **9822**
UNDERGRADUATE STUDENT AWARDS FOR RESEARCH/FOR UNDE CHUK-
WUMA ANYAJIKE
 01/30/1997 - 08/14/1997 FY98: \$0 Total: \$12,000
Prin. Invest.: BERGLUND
Tech. Officer: SFC/R LAWRENCE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

WASHINGTON

NAG 5 2908 CENTRAL WASHINGTON UNIVERSITY **9823**
KINEMATICS AND DYNAMICS OF CONTINENTAL LITHOSPHERE IN THE
EASTERN CALIF. SHEARZONE: ETC...
 03/14/1995 - (3/14/1999 FY98: \$0 Total: \$382,404
Prin. Invest.: A. MILLER
Tech. Officer: GSFC/B G BILLS
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7672 CENTRAL WASHINGTON UNIVERSITY **9824**
FUNDING FOR 'VARIATIONS IN SEA LEVEL CHANGE ALONG THE CASCA-
DIA MARGIN. (SENH98-0083)
 09/01/1998 - 12/31/1998 FY98: \$37,100 Total: \$37,100
Prin. Invest.: M MILLER
Tech. Officer: GSFC/H V FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3826 **CENTRAL WASHINGTON UNIVERSITY** **9825**
SATELLITE-BASED INVESTIGATIONS OF THE TRANSITION FROM AN
OCEANIC TO CONTINENTAL TRANSFORM MARGIN
12/09/1993 - 07/31/1998 FY98: \$0 Total: \$231,648
Prin. Invest.: M MILLER
Tech. Officer: T Q/M BALTUCK
CASE Category: 32 - GEOLOGICAL SCIENCE

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| NAG 5 6445 | NORTHWEST INDIAN COLLEGE | 9826 |
| PACE AWARD -SEAQUEST PHASE II PROGRAM | | |
| 10/24/1997 - 03/30/1999 | FY98: \$197,840 | Total: \$197,840 |
| Prin. Invest.: K YAMAMOTO | | |
| Tech. Officer: C SFC/STOUTSENBERGER | | |
| CASE Categor : 99 - MULTI INTERDISCIPL. OTHER | | |

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| NAG 8 1000 | NORTHWEST INDIAN COLLEGE | 9827 |
| JOVE | | |
| 11/24/1993 - 01/30/1997 | FY98: \$0 | Total: \$97,704 |
| <i>Prin. Invest.:</i> D BURNS, C D WESTER | | |
| <i>Tech. Officer:</i> N SFC/F SIX <i>Tech. Officer:</i> NONE | | |
| <i>CASE Categor.:</i> 54 - ENVIRONMENTAL BIOLOGY | | |

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| NAGW 5143 | NORTHWEST INDIAN COLLEGE | 9828 |
| NASA SEAQUEST PROGRAM | | |
| 08/14/1996 - 09/30/1997 | FY98: \$0 | Total: \$98,920 |
| Prin. Invest.: D McDONALD | | |
| Tech. Officer: H Q/B WHITE | | |
| CASE Categori: 99 - MULTI INTERDISCIPL. OTHER | | |

NAG 5 6303 UNIVERSITY OF PUGET SOUND **9829**
PHOTOSYNTHESIS AND IRON TRANSFORMATION IN MATS
 10/06/1997 – 05/31/1999 FY98: \$81,268 Total: \$81,268
Prin. Invest.: D PIERSON
Tech. Officer: GSFC/M A MEYER
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAGW 5090 UNIVERSITY OF PUGET SOUND **9830**
PHOTOSYNTHESIS AND IRON TRANSFORMATIONS
 06/24/1996 – 05/31/1997 FY98: -\$6,006 Total: \$60,664
Prin. Invest.: B PIERSON
Tech. Officer: HQ/M MEYER, HQ/H C BRINTON
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAG 1 1495 UNIVERSITY OF WASHINGTON **9831**
SAFETY OF PROCESS – CONTROL SOFTWARE NLPN 93-223
 04/19/1993 – 02/15/1997 FY98: -\$3,591 Total: \$328,951
Prin. Invest.: N G LEVESON
Tech. Officer: LARC/D E ECKHARDT
CASE Category: 22 – COMPUTER SCIENCE

NAG 1 1586 UNIVERSITY OF WASHINGTON **9832**
FATIGUE CRACK GROWTH IN UNSYMMETRICALLY LOADED THIN CYLINDERS NLPN 93-711
 01/14/1994 – 09/30/1997 FY98: -\$182 Total: \$153,689
Prin. Invest.: I M FYFE
Tech. Officer: LARC/J C NEWMAN JR., LARC/C E HARRIS
CASE Category: 46 – MECHANICAL ENGR

NAG 1 1628 UNIVERSITY OF WASHINGTON **9833**
CONTRIBUTIONS TO AIRPLANE CONFIGURATION AERO ELASTIC SHAPE OPTIMIZATION (MY 1/3)
 05/31/1994 – 09/30/1997 FY98: \$0 Total: \$150,000
Prin. Invest.: E LIVINE
Tech. Officer: LARC/J F BARTHELEMY
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 1709 UNIVERSITY OF WASHINGTON **9834**
NASA COLLABORATIVE STUDIES ON THE RADIATIVE EFFECTS OF CLOUDS AND AEROSOLS NLPN 95-211R
 03/29/1995 – 03/31/1999 FY98: \$1 Total: \$487,001
Prin. Invest.: P V HOBBS
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1711 UNIVERSITY OF WASHINGTON **9835**
COORDINATED PARAMETERIZED DEVELOPMENT AND LARGE-EDDY SIMULATION FOR MARINE AND ARCTIC CLOUD ...
 03/31/1995 – 06/30/1998 FY98: \$1 Total: \$228,001
Prin. Invest.: C S BRETHERTON
Tech. Officer: LARC/D S MCDUGAL
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1732 UNIVERSITY OF WASHINGTON **9836**
FEASIBILITY OF MAPPING CLIMATE FORCING BY ANTHROPOGENIC AEROSOLS BY COMBINING GROUND-BASED AEROSOL
 06/08/1995 – 12/07/1996 FY98: -\$1,373 Total: \$48,627
Prin. Invest.: R J CHARLSON, T L ANDERSON
Tech. Officer: LARC/D M WINKER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1803 UNIVERSITY OF WASHINGTON **9837**
WAVE DYNAMICS AND TRANSPORT IN THE STRATOSPHERE
 02/08/1996 – 12/31/1998 FY98: \$134,000 Total: \$365,462
Prin. Invest.: J R HOLTON
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1877 UNIVERSITY OF WASHINGTON **9838**
COUPLING SATELLITE AND GROUND-BASED INSTRUMENT TO MAP CLIMATE FORCING BY ANTHROPOGENIC AEROSOLS
 11/13/1996 – 12/15/1998 FY98: \$73,393 Total: \$158,469
Prin. Invest.: R J CHARLSON
Tech. Officer: LARC/D M WINKER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 1894 UNIVERSITY OF WASHINGTON **9839**
A DEMONSTRATION OF AN AIR TRAFFIC CONTROL SAFETY EVALUATION
 02/12/1997 – 10/13/1998 FY98: \$1 Total: \$250,001
Prin. Invest.: N G LEVENSON
Tech. Officer: LARC/F S SHIPMAN, LARC/K A SMITH
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2020 UNIVERSITY OF WASHINGTON **9840**
INTENT SPECIFICATION
 03/10/1998 – 03/31/1999 FY98: \$43,750 Total: \$43,750
Prin. Invest.: N G LEVESON
Tech. Officer: LARC/D E ECKHARDT
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2055 UNIVERSITY OF WASHINGTON **9841**
STRUCTURAL DESIGN METHODOLOGY BASED ON CONCEPTS OF UNCERTAINTY
 05/08/1998 – 02/28/1999 FY98: \$68,535 Total: \$68,535
Prin. Invest.: K Y LIN
Tech. Officer: LARC/W J STROUD
CASE Category: 41 – AERONAUTICAL ENGR

NAG 1 2072 UNIVERSITY OF WASHINGTON **9842**
COORD'D PARAMETERIZATION DEV & LG-EDDY SIMULATION FOR MARINE & ARCTIC CLOUD-TOPPED BOUNDARY LAYERS
 06/12/1998 – 03/31/1999 FY98: \$86,000 Total: \$86,000
Prin. Invest.: C S BRETHERTON
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 1 2079 UNIVERSITY OF WASHINGTON **9843**
AIRBORNE STUDIES IN THE ARCTIC IN SUPPORT OF FIRE III
 06/12/1998 – 03/11/1999 FY98: \$351,064 Total: \$351,064
Prin. Invest.: P V HOBBS, D A HEGG
Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 2 723 UNIVERSITY OF WASHINGTON **9844**
STRUCTURAL MODELING OF LIFTING SURFACE CONFIGURATIONS FOR AIRPLANE MULTI-DISCIPLINARY
 07/30/1991 – 09/30/1997 FY98: \$0 Total: \$291,192
Prin. Invest.: E LIVNE
Tech. Officer: ARC/M D MOORE, ARC/H D MIURA
CASE Category: 99 – MULTIDISCIPLINARY, OTHER

NAG 2 1157 UNIVERSITY OF WASHINGTON **9845**
PRESSURE SENSITIVE PAINT: IMPROVED QUALITY CONTROL & REFERNCE
 08/27/1997 - 11/30/1998 FY98: \$175,000 Total: \$302,000
Prin. Invest.: M P GOUTERMAN
Tech. Officer: ARC/J H BELL, ARC/E T SCHAIRER
CASE Category: 12 - CHEMISTRY

NAG 3 1595 UNIVERSITY OF WASHINGTON **9846**
PRESSURE WAVE MACHINE DEVELOPMENT
 06/07/1994 - 09/30/1998 FY98: \$0 Total: \$226,067
Prin. Invest.: J J KELLER
Tech. Officer: LERC/G SKOCH
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 1837 UNIVERSITY OF WASHINGTON **9847**
PHORETIC AND RADIMEDTRIC FORCE MEASUREMENT ON MICROPARTICLES UNDER MICROGRAVITY CONDITIONS
 04/22/1996 - 04/30/2000 FY98: \$33,000 Total: \$167,000
Prin. Invest.: E J DAVIS
Tech. Officer: LERC/J S LING, LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 3 1865 UNIVERSITY OF WASHINGTON **9848**
INDIUM MONO-ION OSCILLATOR II
 07/23/1996 - 07/22/2000 FY98: \$100,000 Total: \$258,000
Prin. Invest.: W NAGOURNEY, M DEHMELT
Tech. Officer: LERC/B S SINGH
CASE Category: 13 - PHYSICS

NAG 5 677 UNIVERSITY OF WASHINGTON **9849**
MICROBURST ELECTRON PRECIPITATION
 03/29/1991 - 04/30/1999 FY98: \$50,000 Total: \$936,486
Prin. Invest.: G K PARKS
Tech. Officer: GSFC/B J FLOWERS
CASE Category: 13 - PHYSICS

NAG 5 1599 UNIVERSITY OF WASHINGTON **9850**
STUDIES OF TROPICAL RAIN SYSTEMS FOR TRMM VALIDATION
 05/13/1991 - 09/30/1999 FY98: \$0 Total: \$987,030
Prin. Invest.: R A HOUE
Tech. Officer: GSFC/O THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1927 UNIVERSITY OF WASHINGTON **9851**
S193: LOOKING DOWN THE ACCRETION AXIS
 03/04/1992 - 09/14/1998 FY98: \$0 Total: \$88,998
Prin. Invest.: P SZKODY
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2114 UNIVERSITY OF WASHINGTON **9852**
DISK PRECESSION IN THE MAGNETIC OLD NOVA V603 AQL
 10/08/1992 - 01/31/1998 FY98: \$0 Total: \$24,500
Prin. Invest.: P A SZKODY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2213 UNIVERSITY OF WASHINGTON **9853**
LARGE SCALE: STRUCTURE AND GALAXY FORMATION
 02/18/1993 - 01/31/1998 FY98: \$0 Total: \$1,486,000
Prin. Invest.: G JAKE, L ADAMS, J BARDEEN
Tech. Officer: GSFC/J R FISCHER
CASE Category: 11 - ASTRONOMY

NAG 5 2294 UNIVERSITY OF WASHINGTON **9854**
FROM MICROSCALE TO MESOSCALE: SNOWMELT, SOIL MOISTURE AND EVAPOTRANSPIRATION USING DISTRIBUTED...
 06/22/1993 - 09/30/1998 FY98: \$0 Total: \$211,699
Prin. Invest.: D P LETTENMAIER
Tech. Officer: GSFC/F G HALL, GSFC/P SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2315 UNIVERSITY OF WASHINGTON **9855**
COORDINATE VOYAGER OBSERVATIONS OF V603 AQL
 07/12/1993 - 01/14/1997 FY98: \$0 Total: \$5,000
Prin. Invest.: P SZKODY
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 2767 UNIVERSITY OF WASHINGTON **9856**
THE ACCRETION AND SPECTRUM OF U GEM IN QUIESCENCE
 10/26/1994 - 11/14/1998 FY98: \$0 Total: \$28,296
Prin. Invest.: P SZKODY
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2793 UNIVERSITY OF WASHINGTON **9857**
ASTROPHYSICS OF COSMIC EVOLUTION
 11/21/1994 - 08/31/1999 FY98: \$90,000 Total: \$387,500
Prin. Invest.: C J HOGAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2802 UNIVERSITY OF WASHINGTON **9858**
DIAGNOSTIC MODELING STUDIES OF OZONE AND WATER VAPOR USING UARS DATA
 11/18/1994 - 11/30/1998 FY98: \$0 Total: \$230,643
Prin. Invest.: K JUNG
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2813 UNIVERSITY OF WASHINGTON **9859**
WIND 3-D PLASMA DATA ANALYSIS
 12/12/1994 - 12/14/1997 FY98: \$0 Total: \$467,900
Prin. Invest.: G K PARKS
Tech. Officer: GSFC/KW OGILVIE
CASE Category: 13 - PHYSICS

NAG 5 2878 UNIVERSITY OF WASHINGTON **9860**
DISSEMINATION OF ATMOSPHERIC SCIENCES AND SPACE SCIENCES DATA AND INFORMATION K-12 AND THE PUBLIC..
 01/19/1995 - 07/31/1998 FY98: \$0 Total: \$879,472
Prin. Invest.: N LINTERSTEINER
Tech. Officer: GSFC/F HASLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3023 UNIVERSITY OF WASHINGTON **9861**
THE EVOLUTION OF GALAXIES AND CLUSTERS OF GALAXIES
 10/02/1995 - 10/14/1998 FY98: \$90,000 Total: \$270,000
Prin. Invest.: G R LAKE
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3078 UNIVERSITY OF WASHINGTON **9862**
MEASURING SURFACE TOPOGRAPHY OF ICE SHEETS: A COMPREHENSIVE STUDY
 09/25/1995 - 09/30/1998 FY98: \$24,800 Total: \$62,800
Prin. Invest.: D P WINEBRENNER
Tech. Officer: GSFC/R A BINDSCHADLER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 5 3121 UNIVERSITY OF WASHINGTON **9863**
A STUDY OF MAGNETIC ACCRETION IN VV PUP AND BL HYI
 10/18/1995 - 10/31/1998 FY98: \$0 Total: \$20,346
Prin. Invest.: P SZKODY
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 3170 UNIVERSITY OF WASHINGTON **9864**
POLAR ULTRAVIOLET IMAGING DATA ANALYSIS
 02/22/1996 - 02/28/1999 FY98: \$446,000 Total: \$1,880,275
Prin. Invest.: G K PARKS
Tech. Officer: GSFC/R A HOFFMAN
CASE Category: 69 - PSYCHOLOGY, OTHER

NAG 5 3188 UNIVERSITY OF WASHINGTON **9865**
WAVE DYNAMICS AND TRANSPORT IN THE MIDDLE ATMOSPHERE (UARS).
 03/29/1996 - 03/31/1998 FY98: \$78,000 Total: \$468,000
Prin. Invest.: J R HOLTON, C G LEOVY
Tech. Officer: GSFC/A R DOUGLASS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3219 UNIVERSITY OF WASHINGTON **9866**
SULFATE CLOUD AND RADIATION (SCAR) DATA
 04/26/1996 - 08/31/1997 FY98: \$0 Total: \$27,056
Prin. Invest.: S GASSO, D HEGG
Tech. Officer: GSFC/Y KAUFMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3292 UNIVERSITY OF WASHINGTON **9867**
ACCRETION MONITORING DURING THE SUPERCYCLE OF V1159 ORI
 07/17/1996 - 01/14/1999 FY98: \$0 Total: \$24,748
Prin. Invest.: P SZKODY
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3293 UNIVERSITY OF WASHINGTON **9868**
SIMULTANEOUS X-RAY AND UV OBSERVATIONS OF THE SHORTEST KNOWN PERIOD BINARY STAR
 07/17/1996 - 01/14/1998 FY98: \$0 Total: \$34,041
Prin. Invest.: B MARGON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 3345 UNIVERSITY OF WASHINGTON **9869**
SPACE SPECTROSCOPY OF THE WHITE DWARFS IN CATAclysmic VARIABLES: PROBES OF ACCRETION PROCESSES.....
 08/13/1996 - 08/14/1999 FY98: \$0 Total: \$99,837
Prin. Invest.: P SZKODY
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3357 UNIVERSITY OF WASHINGTON **9870**
A HIGH-RESOLUTION SURVEY OF THE DISK OF M31
 08/13/1996 - 02/14/1998 FY98: \$0 Total: \$8,246
Prin. Invest.: P HODGE
Tech. Officer: GSFC/R PETRE
CASE Category: 12 - CHEMISTRY

NAG 5 3462 UNIVERSITY OF WASHINGTON **9871**
RETROVATIVE RESEARCH PROGRAM - STABILITY OF THE SOL
 11/02/1996 - 08/31/1998 FY98: \$0 Total: \$140,000
Prin. Invest.: T R QUINN
Tech. Officer: GSFC/D HOLLAND
CASE Category: 13 - PHYSICS

NAG 5 3624 UNIVERSITY OF WASHINGTON **9872**
MODELING OF POLYNYA PROPERTIES IN THE POLAR SEAS
 02/12/1997 - 12/31/1997 FY98: \$0 Total: \$28,600
Prin. Invest.: S MARTIN
Tech. Officer: GSFC/R H THOMAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3729 UNIVERSITY OF WASHINGTON **9873**
INVESTIGATION OF FOREST STAND STRUCTURAL & COMPOSITIONAL PACIFIC NORTHWEST FORESTS
 02/12/1997 - 09/30/1998 FY98: \$0 Total: \$100,000
Prin. Invest.: D R GILLESPIE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3779 UNIVERSITY OF WASHINGTON **9874**
MAPPING ANTARCTIC OZONE IN THE 1970S FROM VISIBLE-
 02/12/1997 - 06/30/1998 FY98: \$0 Total: \$66,836
Prin. Invest.: S G WARREN
Tech. Officer: GSFC/J A KAYE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3825 UNIVERSITY OF WASHINGTON **9875**
PROPOSAL TO STUDY BACKGROUNDS AND TRIGGERING CONDITIONS FOR GAMMA RAY TELESCOPES IN LOW EARTH ORBIT
 01/29/1997 - 01/31/1998 FY98: \$0 Total: \$14,000
Prin. Invest.: T H BURNETT
Tech. Officer: GSFC/J P NORRIS
CASE Category: 11 - ASTRONOMY

NAG 5 3958 UNIVERSITY OF WASHINGTON **9876**
TRACE GAS DYNAMICS IN THE JAU RIVER BASIN, NORTH CAROLINA
 02/13/1997 - 02/14/1999 FY98: \$0 Total: \$38,319
Prin. Invest.: D E RICHEY
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

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| <p>NAG 5 3995 UNIVERSITY OF WASHINGTON 9877 SAR-BASED STRUCTURAL MAPPING OF THE TRANSANTARCTIC 04/30/1997 - 02/28/1998 FY98: \$0 Total: \$43,337 <i>Prin. Invest.:</i> D LEVY <i>Tech. Officer:</i> GSFC/R H THOMAS <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE</p> | <p>NAG 5 4540 UNIVERSITY OF WASHINGTON 9885 THERMAL HISTORY OF LUNAR CRUSTAL ROCKS 05/06/1997 - 12/14/1998 FY98: \$31,000 Total: \$62,000 <i>Prin. Invest.:</i> D S MCCALLUM <i>Tech. Officer:</i> GSFC/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY</p> |
| <p>NAG 5 4074 UNIVERSITY OF WASHINGTON 9878 PERCEIVED SELF-MOTION ASSESSED BY COMPUTER-MADE AN 03/17/1997 - 02/14/1999 FY98: \$0 Total: \$70,512 <i>Prin. Invest.:</i> D E PARKER <i>Tech. Officer:</i> GSFC/V SCHNEIDER <i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER</p> | <p>NAG 5 4630 UNIVERSITY OF WASHINGTON 9886 AEROSOL CONCENTRATIONS AND LARGE SCALE CLOUD DISTR BOUNDARY LAYER 05/21/1997 - 03/31/1999 FY98: \$63,000 Total: \$121,297 <i>Prin. Invest.:</i> M B BAKER <i>Tech. Officer:</i> GSFC/M CHOU <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE</p> |
| <p>NAG 5 4105 UNIVERSITY OF WASHINGTON 9879 TORQUE FLUCTUATIONS IN SMC X-1 04/18/1997 - 03/31/1999 FY98: \$0 Total: \$40,000 <i>Prin. Invest.:</i> P E BOYNTON <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY</p> | <p>NAG 5 4681 UNIVERSITY OF WASHINGTON 9887 ENERGY DISTRIBUTION WITHIN THE TERRESTRIAL MAGNETO WITH NUMERICAL MODELS 06/17/1997 - 03/30/1998 FY98: \$0 Total: \$53,477 <i>Prin. Invest.:</i> D MCCARTHY <i>Tech. Officer:</i> GSFC/J GREBOWSKY <i>CASE Category:</i> 13 - PHYSICS</p> |
| <p>NAG 5 4175 UNIVERSITY OF WASHINGTON 9880 ESTIMATING ALBEDO & SUMMER ICE MELT WITH RGPS PROD 03/19/1997 - 12/31/1998 FY98: \$0 Total: \$77,161 <i>Prin. Invest.:</i> R W LINDSAY <i>Tech. Officer:</i> GSFC/R H THOMAS <i>CASE Category:</i> 33 - OCEANOGRAPHY</p> | <p>NAG 5 4686 UNIVERSITY OF WASHINGTON 9888 REMOTE SENSING OF MAGNETOSPHERIC STRUCTURE USING (STP PARTICLE AND FIELD DATA 06/05/1997 - 05/31/1999 FY98: \$47,834 Total: \$80,422 <i>Prin. Invest.:</i> D C WHIPPLE <i>Tech. Officer:</i> GSFC/J GREBOWSKY <i>CASE Category:</i> 13 - PHYSICS</p> |
| <p>NAG 5 4176 UNIVERSITY OF WASHINGTON 9881 USE OF RADARSAT DATA TO ESTIMATE SEA-ICE MELTING I ESTIMATE FRESH WATER FLUX TO THE ARCTIC OCEAN 03/24/1997 - 12/31/1998 FY98: \$64,527 Total: \$126,027 <i>Prin. Invest.:</i> S MARTIN <i>Tech. Officer:</i> GSFC/R H THOMAS <i>CASE Category:</i> 33 - OCEANOGRAPHY</p> | <p>NAG 5 4712 UNIVERSITY OF WASHINGTON 9889 TITLE: THE REGIONAL AMAZON MODEL SYNOPTIC SCALE H BIO-GEOCHEMICAL CYCLES FROM EOS (EOSRAM) 06/23/1997 - 06/30/1999 FY98: \$388,877 Total: \$777,754 <i>Prin. Invest.:</i> J FICHEY <i>Tech. Officer:</i> GSFC/A C JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 5 4242 UNIVERSITY OF WASHINGTON 9882 A THEORETICAL STUDY OF PROCESSES DRIVING THE FORMA 04/17/1997 - 04/14/1999 FY98: \$68,283 Total: \$133,706 <i>Prin. Invest.:</i> T QUIN <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY</p> | <p>NAG 5 4728 UNIVERSITY OF WASHINGTON 9890 SATELLITE OBSERVATIONS OF ICE SHEET CLIMATE VARIAT SCALES 06/19/1997 - 09/14/1998 FY98: \$0 Total: \$143,429 <i>Prin. Invest.:</i> D L WINBRENNER <i>Tech. Officer:</i> GSFC/S GOGINENI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 5 4375 UNIVERSITY OF WASHINGTON 9883 POLAR EXCHANGE AT THE SEA SURFACE 06/11/1997 - 05/31/1999 FY98: \$904,499 Total: \$1,949,035 <i>Prin. Invest.:</i> D A ROTHROCK <i>Tech. Officer:</i> GSFC/S GOGINENI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> | <p>NAG 5 4739 UNIVERSITY OF WASHINGTON 9891 RADIATIVE TRANSFER IN SNOW TERRAIN FOR APPLICATION REMOTE SENSING 06/17/1997 - 06/14/1999 FY98: \$38,000 Total: \$73,000 <i>Prin. Invest.:</i> L T JANG <i>Tech. Officer:</i> GSFC/A T CHANG <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 5 4473 UNIVERSITY OF WASHINGTON 9884 INTERPLANETARY DUST 06/02/1997 - 03/14/1999 FY98: \$188,000 Total: \$373,000 <i>Prin. Invest.:</i> D E BROWNLEE <i>Tech. Officer:</i> GSFC/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY</p> | <p>NAG 5 4791 UNIVERSITY OF WASHINGTON 9892 MONITORING THE ACCRETION OF TWO OLD NOVAE 06/17/1997 - 06/30/1998 FY98: \$0 Total: \$5,000 <i>Prin. Invest.:</i> P S KODY <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY</p> |

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NAG 5 4795 UNIVERSITY OF WASHINGTON **9893**
TRMM VALIDATION: INTEGRATION OF TRMM SATELLITE AN DATA TO DETERMINE TROPICAL HEATING
 09/08/1997 - 09/14/1999 FY98: \$260,000 Total: \$460,000
Prin. Invest.: R A HOUZE, JR.
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4961 UNIVERSITY OF WASHINGTON **9894**
INSTRUMENTATION OF NEW AIRCRAFT FOR ATMOSPHERIC RE
 07/03/1997 - 06/14/1998 FY98: \$0 Total: \$680,982
Prin. Invest.: P V HOBBS
Tech. Officer: GSFC/D STARR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 5011 UNIVERSITY OF WASHINGTON **9895**
ELECTRIC FIELD & OPTICAL STUDIES OF LIGHTNING GENERATED PULSES
 05/12/1993 - 09/30/1997 FY98: \$0 Total: \$342,463
Prin. Invest.: R H HOLZWORTH
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 5026 UNIVERSITY OF WASHINGTON **9896**
A FRACTURE TOUGHNESS STUDY OF SCRIM AND FIBER REINFORCED FILMS
 12/21/1994 - 02/28/1997 FY98: -\$1,526 Total: \$132,357
Prin. Invest.: D L HARTMANN
Tech. Officer: GSFC/R A SCHIFFER
CASE Category: 33 - OCEANOGRAPHY

NAG 5 5183 UNIVERSITY OF WASHINGTON **9897**
DROPPS: DISTRIBUTION AND ROLE OF PARTICLES IN THE POLAR SUMMER MESOSPHERE
 03/13/1998 - 12/31/1998 FY98: \$58,664 Total: \$58,664
Prin. Invest.: R H HOLZWORTH
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 5190 UNIVERSITY OF WASHINGTON **9898**
ATMOSPHERIC LIGHTNING ATMOSPHERIC LIGHTNING
 04/16/1998 - 03/31/1999 FY98: \$75,496 Total: \$75,496
Prin. Invest.: M MCCARTHY
Tech. Officer: GSFC/W B JOHNSON
CASE Category: 13 - PHYSICS

NAG 5 6067 UNIVERSITY OF WASHINGTON **9899**
IMPACT OF FOREST CLEARCUTTING IN THE PACIFIC NORTH OD EVENTS
 07/28/1997 - 07/31/1999 FY98: \$85,000 Total: \$170,000
Prin. Invest.: A GILLESPIE
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 6101 UNIVERSITY OF WASHINGTON **9900**
CLIMATE PROCESSES OVER THE OCEAN
 07/24/1997 - 12/31/1999 FY98: \$564,000 Total: \$1,128,000
Prin. Invest.: D HARTMANN
Tech. Officer: GSFC/R SCHIFFER
CASE Category: 33 - OCEANOGRAPHY

NAG 5 6244 UNIVERSITY OF WASHINGTON **9901**
MAGNETOSHEATH/IONOSPHERIC COUPLING IN THE CUSP/CLE
 08/21/1997 - 05/31/1999 FY98: \$33,750 Total: \$111,750
Prin. Invest.: D M WINGLEE
Tech. Officer: GSFC/M M MELLOTT
CASE Category: 13 - PHYSICS

NAG 5 6297 UNIVERSITY OF WASHINGTON **9902**
UNIVERSITY OF WASHINGTON - RESEARCH EARTH SYSTEM S
 09/15/1997 - 08/31/1998 FY98: \$0 Total: \$75,000
Prin. Invest.: J M DECOSMO
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6328 UNIVERSITY OF WASHINGTON **9903**
PLASMODESMATA AND THE CONTROL OF GRAVITROPISM
 09/11/1997 - 09/30/1999 FY98: \$0 Total: \$65,000
Prin. Invest.: D CLELAND
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6365 UNIVERSITY OF WASHINGTON **9904**
ASSESSMENT OF REQUIRED ACCURACY OF DIGITAL ELEVATI MODELING
 09/17/1997 - 12/31/1998 FY98: \$0 Total: \$134,506
Prin. Invest.: D LETTENMAIER
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6388 UNIVERSITY OF WASHINGTON **9905**
ICE THICKNESS DISTRIBUTION SAMPLING TEST
 10/07/1997 - 09/30/1998 FY98: \$101,524 Total: \$101,524
Prin. Invest.: D ROTHROCK
Tech. Officer: GSFC/S GOGINENI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6392 UNIVERSITY OF WASHINGTON **9906**
GYRE-SCALE CIRCULATION AND COUPLING IN THE NORTH A TLANTIC AND PACIFIC OCEANS: A RENEWAL PROPOSAL
 10/17/1997 - 12/30/1998 FY98: \$85,000 Total: \$85,000
Prin. Invest.: D KELLY
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 6463 UNIVERSITY OF WASHINGTON **9907**
BROADBAND INFRARED THERMOMETER MEASUREMENTS FOR MO DIS VALIDATION
 10/14/1997 - 09/30/1999 FY98: \$402,038 Total: \$402,038
Prin. Invest.: A T JESSUP
Tech. Officer: GSFC/D O STARR
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6493 UNIVERSITY OF WASHINGTON **9908**
VALIDATION OF RADARSAT GEOPHYSICAL PROCESSOR SYSTE MS PROD- UCTS
 10/27/1997 - 09/30/2000 FY98: \$234,884 Total: \$234,884
Prin. Invest.: R LINDSAY
Tech. Officer: GSFC/J DODGE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

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| NAG 5 6505 UNIVERSITY OF WASHINGTON 9909 "ESTIMATION OF FLOOD HAZARDS THROUGH REMOTE SENSING AND MODELING (SENH 06-0114, LETTENMAIR AND WOO 10/24/1997 - 10/31/1999 FY98: \$92,500 Total: \$92,500 <i>Prin. Invest.:</i> D LETTENMAIER <i>Tech. Officer:</i> GSFC/H FREY <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE | NAG 5 6942 UNIVERSITY OF WASHINGTON 9917 IMPROVING THE LUNAR LASER-RANGING TEST OF THE STRO NG EQUIV- ALENCE PRINCIPLE 02/10/1998 - 01/31/1999 FY98: \$27,000 Total: \$27,000 <i>Prin. Invest.:</i> J H GUNDLACH <i>Tech. Officer:</i> GSFC/H HASAN <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 6626 UNIVERSITY OF WASHINGTON 9910 CODES TO ENABLE DIRECT SIMULATION OF SOLAR SYSTEM FORMATION. 11/17/1997 - 11/14/1998 FY98: \$145,000 Total: \$145,000 <i>Prin. Invest.:</i> G LAKE <i>Tech. Officer:</i> GSFC/J FISCHER <i>CASE Category:</i> 11 - ASTRONOMY | NAG 5 6995 UNIVERSITY OF WASHINGTON 9918 ROSAT PROPOSAL - RCW 58: THE MOST FILAMENTARY BU BBLE 02/19/1998 - 02/ 4/1999 FY98: \$3,700 Total: \$3,700 <i>Prin. Invest.:</i> E MAGNIER <i>Tech. Officer:</i> GSFC/R PETRE <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 6678 UNIVERSITY OF WASHINGTON 9911 EQUATOR-S PLASMA RESEARCH GRANT 11/28/1997 - 09/30/1998 FY98: \$80,000 Total: \$80,000 <i>Prin. Invest.:</i> G R K S <i>Tech. Officer:</i> GSFC/M HESSE <i>CASE Category:</i> 13 - PHYSICS | NAG 5 7054 UNIVERSITY OF WASHINGTON 9919 GRAVITATIONAL MICROLENSING 02/27/1998 - 02/28/2001 FY98: \$60,000 Total: \$60,000 <i>Prin. Invest.:</i> C W STUBBS <i>Tech. Officer:</i> GSFC/H HASAN <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 6688 UNIVERSITY OF WASHINGTON 9912 A CONTINUED STUDY OF ACCRETION IN MAGNETIC SYSTEMS WITH LARGE RATIOS OF SOFT/HARD X-RAYS 12/01/1997 - 10/31/1998 FY98: \$11,520 Total: \$11,520 <i>Prin. Invest.:</i> P SZKODY <i>Tech. Officer:</i> GSFC/R J OLIVERSEN <i>CASE Category:</i> 11 - ASTRONOMY | NAG 5 7090 UNIVERSITY OF WASHINGTON 9920 WAVE DYNAMICS AND TRANSPORT IN THE MIDDLE ATMOSPHERE (UARS) 02/24/1998 - 02/23/1999 FY98: \$73,958 Total: \$73,958 <i>Prin. Invest.:</i> D R HOLTON <i>Tech. Officer:</i> GSFC/A DOUGLASS <i>CASE Category:</i> 11 - ATMOSPHERIC SCIENCE |
| NAG 5 6819 UNIVERSITY OF WASHINGTON 9913 SATELLITE OBSERVATIONS OF ICE SHEET CLIMATE VARIATIONS ON DECADEAL TIME SCALES 01/08/1998 - 12/31/1998 FY98: \$88,614 Total: \$88,614 <i>Prin. Invest.:</i> D WINEBRENNER <i>Tech. Officer:</i> GSFC/S GOGINENI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7107 UNIVERSITY OF WASHINGTON 9921 EXTREME ULTRAVIOLET OBSERVATIONS OF THE BRIGHT AM HERCULIS TYPE CATAclysmic VARIABLE AR 03/13/1998 - 03/31/1999 FY98: \$18,100 Total: \$18,100 <i>Prin. Invest.:</i> P SZKODY <i>Tech. Officer:</i> GSFC/R J OLIVERSEN <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 6885 UNIVERSITY OF WASHINGTON 9914 A HIGH-RESOLUTION SURVEY OF THE DISK OF M31 -ROSAT PROPOSAL 02/06/1998 - 01/31/1999 FY98: \$6,475 Total: \$6,475 <i>Prin. Invest.:</i> E MAGNIER <i>Tech. Officer:</i> GSFC/R PETRE <i>CASE Category:</i> 11 - ASTRONOMY | NAG 5 7114 UNIVERSITY OF WASHINGTON 9922 WIND DATA ANALYSIS USING THE 3-D INSTRUMENT 03/31/1998 - 03/31/1999 FY98: \$140,000 Total: \$140,000 <i>Prin. Invest.:</i> G PARKS <i>Tech. Officer:</i> GSFC/K OGILVIE <i>CASE Category:</i> 91 - MULTI INTERDISCIPL, OTHER |
| NAG 5 6894 UNIVERSITY OF WASHINGTON 9915 SATELLITE STUDIES OF THE ICE COVERS OF THE OKHOTSK & SIBERIAN SHELF SEAS 01/16/1998 - 12/31/1998 FY98: \$83,067 Total: \$83,067 <i>Prin. Invest.:</i> S MARTIN <i>Tech. Officer:</i> GSFC/S GOGINENI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAG 5 7278 UNIVERSITY OF WASHINGTON 9923 XTE PROPOSAL - THE OUTBURST CYCLE OF V803 CEN 04/15/1998 - 04/30/1999 FY98: \$10,353 Total: \$10,353 <i>Prin. Invest.:</i> P SZKODY <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY |
| NAG 5 6924 UNIVERSITY OF WASHINGTON 9916 GRANT 02/04/1998 - 01/31/1999 FY98: \$388,269 Total: \$388,269 <i>Prin. Invest.:</i> G PARKS <i>Tech. Officer:</i> GSFC/M HESSE <i>CASE Category:</i> 13 - PHYSICS | NAG 5 7300 UNIVERSITY OF WASHINGTON 9924 EVALUATION OF HYDROLOGIC CONTROLS ON CATCHMENT SCALE ENERGY & MOISTURE FLUXES 05/27/1998 - 04/30/2000 FY98: \$52,516 Total: \$52,516 <i>Prin. Invest.:</i> F MANNERING <i>Tech. Officer:</i> GSFC/J WICKLAND <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER |

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NAG 5 7330 UNIVERSITY OF WASHINGTON **9925**
XTE PROPOSAL - TIMING THE X-RAY SOURCE IN NCG 6652 : THE REMAINING LUMINOUS GLOBULAR CLUSTER
 04/24/1998 - 04/30/1999 FY98: \$10,200 Total: \$10,200
Prin. Invest.: B MARGON
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 7495 UNIVERSITY OF WASHINGTON **9926**
MAPPING THE SPATIAL DISTRIBUTION AND TIME EVOLUTION OF SNOW-WATER EQUIVALENT WITH PASSIVE MICROWAVE
 06/29/1998 - 09/14/2001 FY98: \$350,000 Total: \$350,000
Prin. Invest.: L TSANG *Prin. Invest.:* NONE
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7526 UNIVERSITY OF WASHINGTON **9927**
EVALUATION OF OCEANIC COOL-SKIN AND WARM LAYER MODELS USING LONG-TERM MEASUREMENTS
 06/08/1998 - 05/31/2001 FY98: \$146,721 Total: \$146,721
Prin. Invest.: A T JESSUP
Tech. Officer: GSFC/E LINDSTROM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7550 UNIVERSITY OF WASHINGTON **9928**
AIRBORNE MICROWAVE IMAGING OF RIVER VELOCITIES
 06/30/1998 - 07/31/2000 FY98: \$330,000 Total: \$330,000
Prin. Invest.: W J PLANT
Tech. Officer: GSFC/E T ENGMAN
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7604 UNIVERSITY OF WASHINGTON **9929**
CIS NET: IN SITU AND REMOTE MONITORING OF PRODUCTIVITY AND NUTRIENT CYCLES IN PUGET SOUND
 07/21/1998 - 09/30/2001 FY98: \$118,664 Total: \$118,664
Prin. Invest.: M PERRY
Tech. Officer: GSFC/J W CAMPBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7675 UNIVERSITY OF WASHINGTON **9930**
UTILIZATION OF THE UNIV OF WASHINGTON'S AIRBORNE MEASUREMENTS FOR STUDIES OF THE RADIATIVE EFFECTS OF
 09/09/1998 - 08/31/1999 FY98: \$120,000 Total: \$120,000
Prin. Invest.: P V HOBBS
Tech. Officer: GSFC/M I MISHCHENKO
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7732 UNIVERSITY OF WASHINGTON **9931**
POLAR UVI MISSION DATA ANALYSIS EXTENDED MISSION
 09/29/1998 - 09/30/1999 FY98: \$619,800 Total: \$619,800
Prin. Invest.: G K PARKS
Tech. Officer: GSFC/R HOFFMAN
CASE Category: 13 - PHYSICS

NAG 7 3 UNIVERSITY OF WASHINGTON **9932**
GRANT FOR P.I. OF THE STARDUST PROGRAM PHASE C/D
 12/30/1996 - 03/31/1999 FY98: \$102,300 Total: \$200,800
Prin. Invest.: D E BROWNLEE
Tech. Officer: HQ/M DAHL
CASE Category: 11 - ASTRONOMY

NAG 8 1149 UNIVERSITY OF WASHINGTON **9933**
PROTEIN CRYSTALLIZATION
 09/01/1995 - 08/31/1999 FY98: \$145,715 Total: \$603,644
Prin. Invest.: V VOGEL, P STAYTON
Tech. Officer: MSFC/M L PUSEY
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1150 UNIVERSITY OF WASHINGTON **9934**
RESEARCH "ELECTRIFICATION IN TROPICAL SYSTEMS"
 09/13/1995 - 09/12/1998 FY98: \$0 Total: \$117,291
Prin. Invest.: M BAKER
Tech. Officer: MSFC/H J CHRISTIAN, MSFC/R J BLAKESLEE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1277 UNIVERSITY OF WASHINGTON **9935**
THIN FILM MEDIATED PHASE CHANGE PHENOMENA
 04/26/1996 - 04/30/1998 FY98: \$30,000 Total: \$120,000
Prin. Invest.: J S WETTLAUER
Tech. Officer: MSFC/D R WOODARD, MSFC/R KROES
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1424 UNIVERSITY OF WASHINGTON **9936**
R/S IMPROVING OCEANIC STORM FORECASTING AND ANALYSIS THROUGH ASSIMILATION OF REMOTE SENSING
 01/13/1998 - 12/31/1998 FY98: \$109,710 Total: \$109,710
Prin. Invest.: R A BROWN
Tech. Officer: MSFC/J M SIMONDS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1512 UNIVERSITY OF WASHINGTON **9937**
WATER TRANSPORT TO THE UPPER TROPOSPHERE BY CONVECTIVE SYSTEMS, AS INFERRED FROM GLOBAL
 04/26/1998 - 04/05/2000 FY98: \$62,307 Total: \$62,307
Prin. Invest.: M BAKER
Tech. Officer: MSFC/J R BLOCKER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 9 683 UNIVERSITY OF WASHINGTON **9938**
LDEF MICROCRATER ANALYSIS
 04/26/1993 - 01/04/1997 FY98: -\$318 Total: \$29,682
Prin. Invest.: D E BROWNLEE
Tech. Officer: JSC/MZOLESKY
CASE Category: 11 - ASTRONOMY

NAG 9 958 UNIVERSITY OF WASHINGTON **9939**
PERCEIVED SELF MOTION ASSESSED BY COMPUTER MADE ANIMATIONS
 11/18/1997 - 11/18/1998 FY98: \$14,558 Total: \$14,558
Prin. Invest.: D E PARKER
Tech. Officer: JSC/D HARM
CASE Category: 56 - MEDICAL

NAGW 662 UNIVERSITY OF WASHINGTON **9940**
WANE DYNAMICS AND TRANSPORT IN THE STRATOSPHERE
 12/01/1984 - 12/31/1996 FY98: -\$1,200 Total: \$1,315,045
Prin. Invest.: J R HOLTON
Tech. Officer: HQ/R D MCPETERS, HQ/M J PRATHER
CASE Category: 31 - ATMOSPHERIC SCIENCE

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| NAGW 844 UNIVERSITY OF WASHINGTON 9941 ISOTOPIC BIOGEOCHEMICAL STUDY OF WETLAND METHANE 10/01/1985 - 06/30/1998 FY98: \$0 Total: \$1,877,951 <i>Prin. Invest.:</i> P D QUAY, S L KING, G FARWELL <i>Tech. Officer:</i> HQ/M J KURYLO, HQ/R T WATSON <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAGW 3287 UNIVERSITY OF WASHINGTON 9949 INTERPLANETARY DUST 11/27/1992 - 09/30/1997 FY98: \$0 Total: \$829,149 <i>Prin. Invest.:</i> C B BROWNLEE <i>Tech. Officer:</i> HQ/H C BRINTON <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE |
| NAGW 1256 UNIVERSITY OF WASHINGTON 9942 SEA ICE TYPE DISCRIMINATION USING POLARIMETRIC SYNTHETIC 12/22/1987 - 09/30/1997 FY98: \$0 Total: \$820,956 <i>Prin. Invest.:</i> D P WINEBRENNER <i>Tech. Officer:</i> HQ/R H THOMAS, HQ/W S WILSON <i>CASE Category:</i> 33 - OCEANOGRAPHY | NAGW 3352 UNIVERSITY OF WASHINGTON 9950 THE FORMAT ON OF CUMULATE ROCKS 01/26/1993 - 12/15/1997 FY98: \$0 Total: \$119,259 <i>Prin. Invest.:</i> L L MCCALLUS <i>Tech. Officer:</i> HQ/H C BRINTON <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE |
| NAGW 2407 UNIVERSITY OF WASHINGTON 9943 POLAR EXCHANGE AT THE SEA SURFACE (POLES); THE INTERACTION OF OCEANS, ICE, AND ATMOSPHERE 04/11/1991 - 09/30/1997 FY98: \$0 Total: \$5,068,565 <i>Prin. Invest.:</i> D A ROTHROCK, S MARTIN, R BROWN <i>Tech. Officer:</i> HQ/R H THOMAS, HQ/W S WILSON <i>CASE Category:</i> 33 - OCEANOGRAPHY | NAGW 3606 UNIVERSITY OF WASHINGTON 9951 PATTERNS OF CZCS OBSERVED PLANT PIGMENT IN REGIONS OF PRESENT OR FUTURE JGOFS WORK 05/28/1993 - 09/30/1997 FY98: -\$24 Total: \$386,053 <i>Prin. Invest.:</i> K HANSE <i>Tech. Officer:</i> HQ/R E MURPHY <i>CASE Category:</i> 33 - OCEANOGRAPHY |
| NAGW 2574 UNIVERSITY OF WASHINGTON 9944 A COUPLED THERMODYNAMIC/STRONG FLUCTUATION THEORY MODEL OF MICROWAVE EMISSION FROM ICE IN POLAR OCEANS 08/16/1991 - 09/30/1997 FY98: -\$146 Total: \$390,242 <i>Prin. Invest.:</i> T C GRENFELL, G A MAYKUT <i>Tech. Officer:</i> HQ/R H THOMAS, HQ/R A SCHIFFER <i>CASE Category:</i> 33 - OCEANOGRAPHY | NAGW 3636 UNIVERSITY OF WASHINGTON 9952 COMPARISON OF INTERPLANETARY AND INTERSTELLAR GRAINS 06/17/1993 - 11/30/1997 FY98: \$0 Total: \$64,172 <i>Prin. Invest.:</i> D BROWNLEE <i>Tech. Officer:</i> HQ/J A NUTH III <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER |
| NAGW 2633 UNIVERSITY OF WASHINGTON 9945 CLIMATE PROCESSES OVER THE OCEAN 07/15/1991 - 09/30/1997 FY98: -\$87 Total: \$3,015,913 <i>Prin. Invest.:</i> D L HARTMANN <i>Tech. Officer:</i> HQ/J C DODGE, HQ/W S WILSON <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | NAGW 3650 UNIVERSITY OF WASHINGTON 9953 EQUATOR-S PLASMA RESEARCH 07/09/1993 - 09/30/1997 FY98: -\$440 Total: \$599,560 <i>Prin. Invest.:</i> G K PARKS <i>Tech. Officer:</i> HQ/E C WHIPPLE, HQ/J D BOHLIN <i>CASE Category:</i> 13 - PHYSICS |
| NAGW 2652 UNIVERSITY OF WASHINGTON 9946 THE REGIONAL AMAZON MODEL: SYNOPTIC SCALE HYDROLOGICAL & BIOGEOCHEMICAL C 07/25/1991 - 09/30/1997 FY98: \$0 Total: \$3,798,462 <i>Prin. Invest.:</i> J E RICHEY <i>Tech. Officer:</i> HQ/R E MURPHY, HQ/W S WILSON <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAGW 3750 UNIVERSITY OF WASHINGTON 9954 AEROSOLS FROM BIOMASS BURNING IN THE TROPICAL SAVANNAH 09/23/1993 - 06/30/1997 FY98: \$0 Total: \$427,500 <i>Prin. Invest.:</i> P V JOBBS <i>Tech. Officer:</i> HQ/J T SUTTLES, HQ/A C JANETOS <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NAGW 2743 UNIVERSITY OF WASHINGTON 9947 MAPPING ANTARCTIC OZONE IN THE 1970'S 09/19/1991 - 06/30/1997 FY98: -\$559 Total: \$350,226 <i>Prin. Invest.:</i> S G WARREN <i>Tech. Officer:</i> HQ/J A KAYE, HQ/R E MURPHY <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | NAGW 3754 UNIVERSITY OF WASHINGTON 9955 EVOLUTION OF AEROSOL SIZE DISTRIBUTION IN THE CLOUDY BOUNDARY LAYER 09/09/1993 - 06/30/1997 FY98: \$0 Total: \$241,375 <i>Prin. Invest.:</i> M B BLAKER, D A HEGG <i>Tech. Officer:</i> HQ/J T SUTTLES, HQ/A C JANETOS <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NAGW 3158 UNIVERSITY OF WASHINGTON 9948 SPACE SPECTROSCOPY OF THE WHITE DWARFS IN CATAclysmic VARIABLES 08/14/1992 - 07/31/1997 FY98: -\$900 Total: \$388,427 <i>Prin. Invest.:</i> P SZKODY <i>Tech. Officer:</i> HQ/G R RIEGLER <i>CASE Category:</i> 11 - ASTRONOMY | NAGW 3755 UNIVERSITY OF WASHINGTON 9956 PLASMA DESMATS AND THE CONTROL OF GRAVITROPISM 09/28/1993 - 09/30/1998 FY98: \$0 Total: \$125,000 <i>Prin. Invest.:</i> R E CLELAND <i>Tech. Officer:</i> HQ/J W HALSTEAD <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR) |

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| NAGW 3821 UNIVERSITY OF WASHINGTON 9957 AEROSOL INFLUENCES ON RADIATION BALANCE 11/24/1993 - 09/30/1996 FY98: -\$5,502 Total: \$78,100 Prin. Invest.: R CHARLSON Tech. Officer: HQ/A C JANETOS, HQ/R T JANETOS CASE Category: 31 - ATMOSPHERIC SCIENCE | NAGW 4712 UNIVERSITY OF WASHINGTON 9965 ASSESSMENT OF REQUIRED ACCURACY OF DIGITAL ELEVATION DATA FOR HYDROLOGIC MODELING 08/22/1995 - 12/31/1998 FY98: \$0 Total: \$187,000 Prin. Invest.: D P LETTENMAIER Tech. Officer: HQ/M Y WEI, HQ/A C JANETOS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAGW 3960 UNIVERSITY OF WASHINGTON 9958 IMPROVING ALTIMETRY USING IONOSPHERIC AND ATMOSPHERIC TOMOGRAPHY 05/14/1994 - 11/30/1997 FY98: -\$3,355 Total: \$266,217 Prin. Invest.: B HOWE Tech. Officer: HQ/J S THEON CASE Category: 31 - ATMOSPHERIC SCIENCE | NAGW 4776 UNIVERSITY OF WASHINGTON 9966 THE STABILITY OF THE SOLAR SYSTEM 09/21/1995 - 08/31/1997 FY98: -\$1,125 Total: \$68,875 Prin. Invest.: T R QUINN Tech. Officer: HQ/D A HOLLAND, HQ/J H BREDEKAMP CASE Category: 13 - PHYSICS |
| NAGW 4169 UNIVERSITY OF WASHINGTON 9959 RADNET: A NEURAL NETWORK-BASED ESTIMATION OF THE SURFACE RADIATION BUDGET IN THE ARCTIC FROM TOVS 10/21/1994 - 09/30/1997 FY98: -\$3,171 Total: \$104,026 Prin. Invest.: A SCHWEIGER Tech. Officer: HQ/R H THOMAS, HQ/J S THEON CASE Category: 31 - ATMOSPHERIC SCIENCE | NAGW 4950 UNIVERSITY OF WASHINGTON 9967 ESTIMATING ALBEDO AND SUMMER ICE MELT 02/20/1996 - 01/31/1997 FY98: -\$329 Total: \$51,486 Prin. Invest.: D W LINDSAY Tech. Officer: HQ/R H THOMAS, HQ/R C HARRISS CASE Category: 33 - OCEANOGRAPHY |
| NAGW 4382 UNIVERSITY OF WASHINGTON 9960 THE ACCUMULATION AND MELT OF SNOW IN THE ARCTIC BASIN 04/24/1995 - 06/30/1997 FY98: \$0 Total: \$129,760 Prin. Invest.: R COLONY Tech. Officer: HQ/R H THOMAS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAGW 5047 UNIVERSITY OF WASHINGTON 9968 MAGNETOSHEATH/IONOSPHERIC COUPLING IN THE CUSP/CLEFT REGION 04/30/1996 - 09/30/1997 FY98: \$0 Total: \$75,000 Prin. Invest.: R M WINGLEE Tech. Officer: HQ/M M MELLOTT, HQ/G L WITHBROE CASE Category: 31 - ATMOSPHERIC SCIENCE |
| NAGW 4393 UNIVERSITY OF WASHINGTON 9961 PERCEIVED SELF-MOTION ASSESSED BY COMPUTER-MADE ANIMATIONS 04/14/1995 - 02/14/1998 FY98: \$0 Total: \$156,480 Prin. Invest.: D E PARKER Tech. Officer: HQ/F SULZMAN CASE Category: 59 - LIFE SCIENCE, OTHER | NAGW 5169 UNIVERSITY OF WASHINGTON 9969 STRUCTURE OF PRECIPITATION SYSTEMS AFFECTING THE MISSISSIPPI BASIN 09/11/1996 - 12/31/1997 FY98: -\$245 Total: \$99,755 Prin. Invest.: R A HOUZE Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER |
| NAGW 4444 UNIVERSITY OF WASHINGTON 9962 AMAZON ECOLOGY A WORKSHOP 05/04/1995 - 06/30/1997 FY98: -\$2,628 Total: \$207,362 Prin. Invest.: J E RICHEY Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAGW 5177 UNIVERSITY OF WASHINGTON 9970 ICE THICKNESS DISTRIBUTION SAMPLING TEST 09/05/1996 - 05/31/1997 FY98: -\$494 Total: \$44,403 Prin. Invest.: D A ROTHROCK Tech. Officer: HQ/R H THOMAS CASE Category: 99 - MULTI INTERDISCIPL, OTHER |
| NAGW 4565 UNIVERSITY OF WASHINGTON 9963 DEVELOPMENT AND TESTING OF OPERATIONAL ATMOSPHERIC CORRECTION OF SATELLITE DATA FOR THE NSF-LTER SITE 05/31/1995 - 09/30/1997 FY98: -\$12,109 Total: \$34,151 Prin. Invest.: J CASTLE, E VERMOTE, J C ROGER Tech. Officer: HQ/D E WICKLAND, HQ/A C JANETOS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER | NAGW 5225 UNIVERSITY OF WASHINGTON 9971 GYRE SCALE CIRCULATION AND COUPLING IN THE NORTH ATLANTIC AND NORTH PACIFIC OCEANS 09/27/1996 - 09/30/1997 FY98: \$0 Total: \$109,307 Prin. Invest.: K A KELLY Tech. Officer: HQ/B C DOUGLAS, HQ/R C HARRISS CASE Category: 33 - OCEANOGRAPHY |
| NAGW 4642 UNIVERSITY OF WASHINGTON 9964 KINEMATICS AND MECHANICS OF SEA ICE 07/18/1995 - 05/14/1998 FY98: \$0 Total: \$247,516 Prin. Invest.: R E MORITZ Tech. Officer: HQ/R H THOMAS, HQ/M BALTUCK CASE Category: 33 - OCEANOGRAPHY | NAS 1 18940 UNIVERSITY OF WASHINGTON 9972 SAGE III SCIENCE INVESTIGATION SUPPORT, P.I. PETER V. HOBBS 10/27/1989 - 01/31/2005 FY98: \$50,000 Total: \$320,513 Prin. Invest.: P V HOBBS Tech. Officer: LARC/G MADDREA CASE Category: 19 - PHYSICAL SCIENCE, OTHER |

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| NAS 5 30613 UNIVERSITY OF WASHINGTON 9973 INVESTIGATION DEFINITION PHASE FOR CLUSTER PLASMA SPECTROMETRY 02/21/1989 - 08/02/1999 FY98: \$175,112 Total: \$4,282,971 <i>Prin. Invest.:</i> G K PARKS <i>Tech. Officer:</i> GSFC/J L CHRISTENSEN <i>CASE Category:</i> 13 - PHYSICS | NCC 5 363 UNIVERSITY OF WASHINGTON 9981 TWO-HANDED INTERFACE IMPROVEMENTS FOR THE STEREO SC OPIC ANALYZER 09/22/1998 - 09/30/1999 FY98: \$41,007 Total: \$41,007 <i>Prin. Invest.:</i> T FURNES <i>Tech. Officer:</i> GSFC/A ROBERTS <i>CASE Category:</i> 22 - COMPUTER SCIENCE |
| NAS 5 31372 UNIVERSITY OF WASHINGTON 9974 INTERMEDIATE THERMAL INFRARED RADIOMETER (EOS INVESTIGATION) 02/19/1992 - 12/14/2001 FY98: \$417,000 Total: \$2,332,000 <i>Prin. Invest.:</i> A R GILLESPIE <i>Tech. Officer:</i> GSFC/H BLODGET <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | NCC 8 116 UNIVERSITY OF WASHINGTON 9982 FRC STARTUP RELEVANT TO FUSION PROPULSION 07/30/1996 - 17/31/1998 FY98: \$0 Total: \$250,000 <i>Prin. Invest.:</i> L HOFFMAN <i>Tech. Officer:</i> ASFC/B EMRICH, MSFC/M HOGUE <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER |
| NCC 2 982 UNIVERSITY OF WASHINGTON 9975 MODELING & SAFETY ANALYSIS OF CRAS/FMS COORDINATOR 03/27/1997 - 02/28/1999 FY98: \$50,000 Total: \$120,000 <i>Prin. Invest.:</i> N G LEVESON <i>Tech. Officer:</i> ARC/E A PALMER <i>CASE Category:</i> 22 - COMPUTER SCIENCE | NGT 30176 UNIVERSITY OF WASHINGTON 9983 GLOBAL CHANGE FELLOWSHIP PROGRAM 09/01/1993 - 09/30/1997 FY98: -\$364 Total: \$65,636 <i>Prin. Invest.:</i> R E BREIDENTHAL <i>Tech. Officer:</i> HQ/G ASRAR, HQ/D M BUTLER <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NCC 2 5152 UNIVERSITY OF WASHINGTON 9976 DEVELOPMENT OF AN AUTOMATIC GRID GENERATOR FOR MULTIELEMENT HIGH-LIFT WINGS 08/11/1995 - 10/31/1996 FY98: -\$5,076 Total: \$34,924 <i>Prin. Invest.:</i> S EBERHARDT, B KIM <i>Tech. Officer:</i> ARC/W R VAN DALSEM, ARC/E TU <i>CASE Category:</i> 41 - AERONAUTICAL ENGR | NGT 30246 UNIVERSITY OF WASHINGTON 9984 GLOBAL CHANGE FELLOWSHIP AWARD 09/29/1994 - 08/31/1997 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> S C PORTER <i>Tech. Officer:</i> HQ/M BALTUCK, HQ/G ASRAR <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE |
| NCC 2 5243 UNIVERSITY OF WASHINGTON 9977 EFFICIENT NONLINEAR CFD-BASED AEROELASTIC ANALYSIS FOR MULTIPLE LOAD CASES PRELIMINARY DESIGN 11/05/1997 - 10/30/1998 FY98: \$93,074 Total: \$93,074 <i>Prin. Invest.:</i> E LIVNE <i>Tech. Officer:</i> ARC/G P GURUSWAMY <i>CASE Category:</i> 41 - AERONAUTICAL ENGR | NGT 30282 UNIVERSITY OF WASHINGTON 9985 GLOBAL CHANGE FELLOWSHIP AWARD 09/29/1994 - 12/31/1997 FY98: \$0 Total: \$66,000 <i>Prin. Invest.:</i> N L INTERSTEINER <i>Tech. Officer:</i> HQ/J S THEON, HQ/G ASRAR <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER |
| NCC 5 248 UNIVERSITY OF WASHINGTON 9978 TWO-HANDED INTERFACE IMPROVEMENTS FOR THE STEREO SC OPIC-FIELD ANALYZER 10/28/1997 - 09/30/1998 FY98: \$44,173 Total: \$44,173 <i>Prin. Invest.:</i> T FURNES <i>Tech. Officer:</i> GSFC/A ROBERTS <i>CASE Category:</i> 29 - MATH/COMPUTER SCI, OTHER | NGT 30313 UNIVERSITY OF WASHINGTON 9986 GLOBAL CHANGE FELLOWSHIP AWARD 07/27/1995 - 08/31/1997 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> J W MURRAY <i>Tech. Officer:</i> HQ/M BALTUCK, HQ/G ASRAR <i>CASE Category:</i> 33 - OCEANOGRAPHY |
| NCC 5 326 UNIVERSITY OF WASHINGTON 9979 SUPPORT OF THE UNIVERSITY OF WASHINGTON'S RESEARCH AIRCRAFT FOR NASASTUDIES (PROPOSAL #111017) 03/23/1998 - 02/28/1999 FY98: \$300,000 Total: \$300,000 <i>Prin. Invest.:</i> P V HOBBS <i>Tech. Officer:</i> GSFC/M D KING <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE | NGT 30324 UNIVERSITY OF WASHINGTON 9987 GLOBAL CHANGE FELLOWSHIP PROGRAM 08/11/1995 - 08/31/1998 FY98: -\$461 Total: \$43,539 <i>Prin. Invest.:</i> D L LIARTMANN <i>Tech. Officer:</i> HQ/R A SCHIFFER, HQ/G ASRAR <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NCC 5 345 UNIVERSITY OF WASHINGTON 9980 BIOGEOCHEMICAL DYNAMICS IN RIVER CORRIDORS OF THE AMAZON BASIN AND THEIR RESPONSE TO ANTHROPOGENIC C 06/25/1998 - 02/28/1999 FY98: \$86,108 Total: \$86,108 <i>Prin. Invest.:</i> J E RICHEY <i>Tech. Officer:</i> GSFC/D W DEERING <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NGT 30335 UNIVERSITY OF WASHINGTON 9988 GLOBAL CHANGE FELLOWSHIP PROGRAM 07/22/1995 - 02/28/1998 FY98: \$0 Total: \$44,000 <i>Prin. Invest.:</i> P V HOBBS <i>Tech. Officer:</i> HQ/R A SCHIFFER, HQ/G ASRAR <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER |

NASA'S UNIVERSITY PROGRAM

WASHINGTON

NGT 30338 UNIVERSITY OF WASHINGTON **9989**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/31/1995 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: T DUNNE
Tech. Officer: HQ/A GHASSEM
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 30343 UNIVERSITY OF WASHINGTON **9990**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/04/1995 - 08/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: D P LETTENMAIER
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 30348 UNIVERSITY OF WASHINGTON **9991**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 09/05/1995 - 08/31/1997 FY98: -\$252 Total: \$43,748
Prin. Invest.: R E MCDUFF
Tech. Officer: HQ/G ASRAR, HQ/M BALTUCK
CASE Category: 33 - OCEANOGRAPHY

NGT 40011 UNIVERSITY OF WASHINGTON **9992**
NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM
 09/29/1989 - 01/31/1998 FY98: \$43,188 Total: \$2,513,354
Prin. Invest.: G K PARKS
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51225 UNIVERSITY OF WASHINGTON **9993**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/26/1994 - 06/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: M J PERRY
Tech. Officer: HQ/A NOVOTNY
CASE Category: 33 - OCEANOGRAPHY

NGT 51279 UNIVERSITY OF WASHINGTON **9994**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/14/1994 - 06/30/1997 FY98: -\$41 Total: \$65,959
Prin. Invest.: S S CARLSON
Tech. Officer: HQ/G LESANE
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 51309 UNIVERSITY OF WASHINGTON **9995**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/06/1994 - 06/30/1997 FY98: -\$46 Total: \$43,954
Prin. Invest.: S HANKS
Tech. Officer: ARC/M MOORE
CASE Category: 22 - COMPUTER SCIENCE

NGT 2 52219 UNIVERSITY OF WASHINGTON **9996**
INFRARED STUDY OF HERBIG AE/BE SYSTEMS
 08/19/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: D BROWNLEE
Tech. Officer: ARC/D H WOODEN, ARC/F C WITTEBORN
CASE Category: 11 - ASTRONOMY

NGT 5 6 UNIVERSITY OF WASHINGTON **9997**
STARLIGHT CORRELATED WITH DAMPED LYMAN-ALPHA ABSORBERS
 06/26/1995 - 06/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: C J HOGAN
Tech. Officer: GSFC/G A SOFFEN, GSFC/B E WOODGATE
CASE Category: 11 - ASTRONOMY

NGT 5 32 UNIVERSITY OF WASHINGTON **9998**
SIMULATION AND ANALYSIS OF AIRCRAFT NOX EMISSIONS IN THE LOWER STRATOSPHERE AND UPPER TROPOSPHERE
 07/24/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: J R HOLTON
Tech. Officer: GSFC/G A SOFFEN, GSFC/A DOUGLAS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 66 UNIVERSITY OF WASHINGTON **9999**
COMPUTATIONAL OPTICS YEAR 1 OF 2 YEAR COMMITMENT PERIOD OF PERFORMANCE SEPT. 1, 1998 TO AUG. 31, 1999
 05/27/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: J BURKE
Tech. Officer: GSFC/G SOFFEN
CASE Category: 21 - MATHEMATICS

NGT 5 30004 UNIVERSITY OF WASHINGTON **10000**
QUANTITATIVE MESOSCALE GEOMORPHOLOGY OF THE AMAZON
 10/11/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: T DUNNE
Tech. Officer: GSFC/G ASRAR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 5 30030 UNIVERSITY OF WASHINGTON **10001**
STRUCTURE, DYNAMICS, AND VARIABILITY OF THERMOCLINE WATER FORMATION IN THE EASTERN SUBTROPICAL NORTH
 10/17/1996 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: L THOMPSON
Tech. Officer: GSFC/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

NGT 5 30053 UNIVERSITY OF WASHINGTON **10002**
MEASURED AND MODELED EXPORT PRODUCTION FROM THE EQUATOR
 09/06/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J W MURRAY
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30067 UNIVERSITY OF WASHINGTON **10003**
GLOBAL CHANGE FELLOWSHIP PROGRAM: RIDGE CREST PROC GLOBAL CHANGE: SYNTHESIS OF OCEANOGRAPHIC & SATELLITE DATA
 09/10/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: R MCDUFF
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30085 UNIVERSITY OF WASHINGTON **10004**
"TROPICAL CLOUD FEEDBACK AND MICROPHYSICAL PROCESS
 09/09/1997 - 08/31/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: D HARTMANN
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

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| <p>NGT 5 30090 UNIVERSITY OF WASHINGTON 10005 PREDICTING THE INTERACTION OF LAND USE AND CLIMATE RESPONSE OF MARITIME MOUNTAINOUS WATERSHEDS 09/11/1997 - 08/31/1998 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> D LETTENMAIER <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p> | <p>NGT 5 40017 UNIVERSITY OF WASHINGTON 10012 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLCSHSHIP PROGRAM. 12/19/1996 - 01/31/1999 FY98: \$446,316 Total: \$791,316 <i>Prin. Invest.:</i> G K PARKS <i>Tech. Officer:</i> GSFC/L KEFFER <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p> |
| <p>NGT 5 30094 UNIVERSITY OF WASHINGTON 10006 PHYSICAL, CHEMICAL, AND RADIATIVE PROPERTIES OF AE BURNING IN BRAZIL/NASA EARTH SYSTEM SCIENCE FELLO 09/10/1997 - 08/31/1998 FY98: \$0 Total: \$22,000 <i>Prin. Invest.:</i> P V HOBBS <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p> | <p>NGT 5 5007R UNIVERSITY OF WASHINGTON 10013 NUMERICAL SIMULATION OF DAMPED LYMAN-ALPHA SYSTEMS 08/26/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> G LAKE <i>Tech. Officer:</i> GSFC/A NURRIDIN <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p> |
| <p>NGT 5 30120 UNIVERSITY OF WASHINGTON 10007 PREDICTING LAND SURFACE FLUXES OF FRESH WATER TO THE ARCTIC OCEAN ESSF RECIPIENT: SANTIAGO GASSO 10/01/1997 - 08/31/1999 FY98: \$44,000 Total: \$44,000 <i>Prin. Invest.:</i> D LETTENMAIER <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p> | <p>NGT 5 50095 UNIVERSITY OF WASHINGTON 10014 X-RAY IMAGING OF AURORA IN COORDINATION WITH ISTP STUDENT RESEARCHERS PROGRAM/KIRSTEN R. LORENTZEN 08/26/1997 - 08/31/1998 FY98: \$0 Total: \$16,000 <i>Prin. Invest.:</i> M P MCCARTHY <i>Tech. Officer:</i> GSFC/A NURRIDIN <i>CASE Category:</i> 13 - PHYSICS</p> |
| <p>NGT 5 30121 UNIVERSITY OF WASHINGTON 10008 ASSESSING THE GLOBAL CHARACTERISTICS OF AEROSOLS: WHAT IS THE INFLUENCE OF HUMIDITY IN COLUMNAR AERO 10/01/1997 - 08/31/1999 FY98: \$44,000 Total: \$44,000 <i>Prin. Invest.:</i> D HEGG <i>Tech. Officer:</i> GSFC/G ASRAR <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p> | <p>NGT 5 52862 UNIVERSITY OF WASHINGTON 10015 MODELING OF ELECTRICAL EFFECTS ON THE DYNAMICS OF SOLIDIFICATION 07/27/1998 - 08/13/2000 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> L N BRUSH <i>Tech. Officer:</i> MSFC/J F DOWDY <i>CASE Category:</i> 47 - METAL & MATERIALS ENGR</p> |
| <p>NGT 5 30149 UNIVERSITY OF WASHINGTON 10009 COMBINED USE OF REMOTE SENSING AND BIOGEOCHEMICAL MODELING TO ESTIMATE PRIMARY PRODUCTION AND CARBO 08/28/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> J E RICHEY, WILHELM <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> | <p>NAG 2 1198 WASHINGTON STATE UNIVERSITY 10016 LIGNIFICATION: A NEW PARADIGM 04/02/1998 - 09/30/1998 FY98: \$41,667 Total: \$41,667 <i>Prin. Invest.:</i> N G LEWIS <i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY <i>CASE Category:</i> 54 - ENVIRONMENTAL BIOLOGY</p> |
| <p>NGT 5 30157 UNIVERSITY OF WASHINGTON 10010 MODELING THE FLAMMABILITY OF BRAZILIAN AMAZON FORESTS AT THE FOREST-SAVANNA ECOTONE 08/28/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> T M HINCKLEY <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> | <p>NAG 3 1387 WASHINGTON STATE UNIVERSITY 10017 BUBBLE DYNAMICS, TWO-PHASE FLOW & BOILING HEAT TRANSFER IN A MICROGRAVITY ENVIRONMENT 12/23/1992 - 09/14/1998 FY98: \$0 Total: \$362,233 <i>Prin. Invest.:</i> J N CHUNG <i>Tech. Officer:</i> LERC/F P CHIARAMONTE <i>CASE Category:</i> 46 - MECHANICAL ENGR</p> |
| <p>NGT 5 30161 UNIVERSITY OF WASHINGTON 10011 COUPLING LAND-SURFACE AND RIVERINE WATER AND CARBON CYCLES IN THE AMAZONBASIN: DEVELOPMENT OF A MUL 08/31/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> J E RICHEY, MAYORGA <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER</p> | <p>NAG 3 1881 WASHINGTON STATE UNIVERSITY 10018 ZNSE WINDOW LAYERS FOR GAAS AND GAIP2 CELLS 05/14/1996 - 05/31/1997 FY98: \$0 Total: \$20,000 <i>Prin. Invest.:</i> L OLSEN <i>Tech. Officer:</i> LERC/S G BAILEY <i>CASE Category:</i> 47 - METAL & MATERIALS ENGR</p> |
| | <p>NAG 3 1918 WASHINGTON STATE UNIVERSITY 10019 PASSIVE OR ACTIVE RADIATION STRESS STABILIZATION OF (AND COUPLING TO) LIQUID BRIDGES & BRIDGE NETWORK 07/12/1996 - 07/11/2000 FY98: \$100,000 Total: \$250,000 <i>Prin. Invest.:</i> P L MARSTON <i>Tech. Officer:</i> LERC/R SKARDA <i>CASE Category:</i> 13 - PHYSICS</p> |

NAG 3 2044 WASHINGTON STATE UNIVERSITY 10020
ZNSEX SY WINDOW LAYERS FOR GAAS AND GAINP2 SOLAR C ELLS
 04/29/1997 – 11/30/1998 FY98: \$0 Total: \$28,000
Prin. Invest.: L OLSEN
Tech. Officer: LERC/S G BAILEY
CASE Category: 47 – METAL & MATERIALS ENGR

NAG 3 2114 WASHINGTON STATE UNIVERSITY 10021
SINGLE BUBBLE SONOLUMINESCENCE IN LOW GRAVITY AND OPTICAL RADIATION PRESSURE POSITIONING OF THE BUBB
 02/24/1998 – 01/07/2000 FY98: \$52,000 Total: \$52,000
Prin. Invest.: P L MARSTON, W E TORRUELLAS
Tech. Officer: LERC/N R HALL
CASE Category: 13 – PHYSICS

NAG 5 4035 WASHINGTON STATE UNIVERSITY 10022
RECONSTRUCTION OF THREE-DIMENSIONAL SHAPE AND SPIN FROM RADAR DATA
 02/27/1997 – 03/31/1999 FY98: \$47,321 Total: \$87,025
Prin. Invest.: D HUDSON
Tech. Officer: GSFC/P G ROGERS
CASE Category: 32 – GEOLOGICAL SCIENCE

NAG 5 4841 WASHINGTON STATE UNIVERSITY 10023
CALCIUM/CALMODULIN-MEDIATED GRAVITROPIC RESPONSE I
 06/19/1997 – 05/31/1999 FY98: \$41,100 Total: \$162,800
Prin. Invest.: B POOVAIAH
Tech. Officer: GSFC/M AVERNER
CASE Category: 59 – LIFE SCIENCE, OTHER

NAG 5 6153 WASHINGTON STATE UNIVERSITY 10024
NEW MEASUREMENT TECHNIQUES FOR SATELLITE AND SHUTT MEASUREMENTS.
 09/08/1997 – 09/14/1998 FY98: \$0 Total: \$25,000
Prin. Invest.: G MOUNT
Tech. Officer: GSFC/E HILSEN RATH
CASE Category: 31 – ATMOSPHERIC SCIENCE

NAG 8 1477 WASHINGTON STATE UNIVERSITY 10025
R/S A COMPARATIVE MODELING STUDY OF MAGNETIC AND ELECTROSTATIC LEVITATION IN MICROGRAVITY
 03/26/1998 – 01/31/2002 FY98: \$66,667 Total: \$66,667
Prin. Invest.: B Q LI
Tech. Officer: MSFC/C TALLEY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NAGW 4636 WASHINGTON STATE UNIVERSITY 10026
RECONSTRUCTION OF THREE-DIMENSIONAL SHAPE AND SPIN STATE OF ASTEROIDS FROM RADAR DATA
 07/31/1995 – 10/31/1998 FY98: \$0 Total: \$79,626
Prin. Invest.: R HUDSON
Tech. Officer: HQ/H BRINTON
CASE Category: 11 – ASTRONOMY

NAG10 164 WASHINGTON STATE UNIVERSITY 10027
EFFECTS OF GRAVITY
 06/08/1995 – 06/18/1998 FY98: \$0 Total: \$276,801
Prin. Invest.: N G LEWIS
Tech. Officer: KSC/W M KNOTT
CASE Category: 51 – BIOLOGY (EXCLUDING ENVIR)

NAS 3 23901 WASHINGTON STATE UNIVERSITY 10028
SCIENTIFIC SUPPORT FOR AN ORBITER EXPERIMENT ON SOLID SURFACE COMBUSTION
 12/19/1984 – 12/19/1997 FY98: -\$456 Total: \$1,177,439
Prin. Invest.: R A ALTENKIRCH
Tech. Officer: LERC/K R SACKSTEDER
CASE Category: 49 – ENGINEERING, OTHER

NCC 2 5182 WASHINGTON STATE UNIVERSITY 10029
EXAMINATION OF TRIP DISK PERFORMANCE FOR HIGH-SPEED WING MODEL TESTING
 06/26/1996 – 06/30/1998 FY98: \$0 Total: \$79,544
Prin. Invest.: D WESTPHAL
Tech. Officer: ARC/R A KENNELLY, ARC/D M DRIVER
CASE Category: 41 – AERONAUTICAL ENGR

NCC 3 354 WASHINGTON STATE UNIVERSITY 10030
REFLIGHT OF THE SOLID SURFACE COMBUSTION EXPERIMENT ... (PREVIOUSLY MISSISSIPPI STATE UNIV.)
 07/12/1994 – 01/11/1997 FY98: -\$59,350 Total: \$175,816
Prin. Invest.: R A ALTENKIRCH
Tech. Officer: LERC/K R SACKSTEDER
CASE Category: 49 – ENGINEERING, OTHER

NCC 3 564 WASHINGTON STATE UNIVERSITY 10031
REFLIGHT OF THE SOLID SURFACE COMBUSTION EXPERIMENT WITH EMPHASIS ON FLAME RADIATION NEAR EXTINCTION
 06/17/1997 – 06/30/1999 FY98: \$129,000 Total: \$249,000
Prin. Invest.: R A ALTENKIRCH
Tech. Officer: LERC/K R SACKSTEDER
CASE Category: 49 – ENGINEERING, OTHER

NCC 8 92 WASHINGTON STATE UNIVERSITY 10032
"STUDY OF MAGNETIC DUMPING EFFECT ON CONVECTION & SOLIDIFICATION UNDER G-JITTER CONDITIONS"
 04/19/1996 – 04/21/2000 FY98: \$45,000 Total: \$180,000
Prin. Invest.: B Q LI
Tech. Officer: MSFC/C R TALLEY
CASE Category: 19 – PHYSICAL SCIENCE, OTHER

NGT 51672 WASHINGTON STATE UNIVERSITY 10033
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/08/1996 – 06/30/1997 FY98: \$0 Total: \$22,000
Prin. Invest.: J N CHUNG
Tech. Officer: HQ/G LESANE
CASE Category: 46 – MECHANICAL ENGR

NGT 3 52330 WASHINGTON STATE UNIVERSITY 10034
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/10/1997 – 08/15/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: P MARSTON
Tech. Officer: LERC/F J MONTEGANI
CASE Category: 13 – PHYSICS

NGT 5 50138 WASHINGTON STATE UNIVERSITY 10035
MICROGRAVITY BOILING IN AN ACOUSTIC FIELD
 09/10/1997 – 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: J N CHUNG
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

WEST VIRGINIA

NAG 2 1194 MARSHALL UNIVERSITY 10036
CALBINDINS & APOPTOSIS AFTERSHORT TERM SPACE FLIGHT
 03/25/1998 - 05/31/1999 FY98: \$51,070 Total: \$51,070
Prin. Invest.: W B RHOTEN, I N SERGEEV
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 9 24 UNIVERSITY OF CHARLESTON -WEST VIRGINIA 10037
GRADUATE STUDENT RESEARCH PROGRAM
 06/02/1997 - 07/01/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: C COOMBS, J NETTLES
Tech. Officer: JSC/D A MORRISON
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT13 52708 UNIVERSITY OF CHARLESTON -WEST VIRGINIA 10038
REMOTE SENSING AND GIS TECHNOLOGIES TO LIMITED RESOURCE FARMING OPERATIONS ON JOHNS ISLAND, SC
 05/23/1996 - 08/01/1998 FY98: \$0 Total: \$44,000
Prin. Invest.: D COOMBS
Tech. Officer: SSC/A JOYCE
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 1 1635 WEST VIRGINIA UNIVERSITY 10039
THE ROLE OF TURBULENT MIXING IN THE CHEMISTRY AND DISPERSION OF THE WAKE OF SUBSONIC AIRCRAFT
 07/26/1994 - 06/30/1997 FY98: -\$3 Total: \$269,833
Prin. Invest.: W S LEWELLEN
Tech. Officer: LARC/W GROSE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 1 1892 WEST VIRGINIA UNIVERSITY 10040
INVESTIGATION OF POINT DOPPLER VELOCIMETRY (PDV) FOR TRANSITION DETECTION IN BOUNDARY LAYERS
 01/13/1997 - 01/12/1999 FY98: \$40,000 Total: \$89,998
Prin. Invest.: J M KUHLMAN
Tech. Officer: LARC/J F MEYERS
CASE Category: 49 - ENGINEERING, OTHER

NAG 1 2096 WEST VIRGINIA UNIVERSITY 10041
ROLE OF TURBULENCE IN CHEMICAL AND DYNAMICAL PROCESSES IN THE NEAR-FIELD WAKE OF SUBSONIC AIRCRAFT
 09/14/1998 - 09/13/2001 FY98: \$49,843 Total: \$49,843
Prin. Invest.: R F TURCO, W S LEWELLEN
Tech. Officer: LARC/W L GROSE, LARC/B E ANDERSON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1134 WEST VIRGINIA UNIVERSITY 10042
VITAL: V & V THROUGH INCONSISTENCE TRACKING & ANALYSIS
 06/25/1997 - 11/30/1998 FY98: \$59,905 Total: \$99,905
Prin. Invest.: J R CALLAHAN, S M ESTERBROOK
Tech. Officer: ARC/M R LOWRY
CASE Category: 22 - COMPUTER SCIENCE

NAG 2 1158 WEST VIRGINIA UNIVERSITY 10043
AIRNET REMOTELY CONTROLLED B747 & B777 SCALE MODEL S/WON-BOARD MICROPROCESSORS-BASED NEURAL NETWORK
 08/25/1997 - 04/30/1999 FY98: \$75,000 Total: \$150,000
Prin. Invest.: M R NAPOLITANO
Tech. Officer: ARC/W F BROOKS
CASE Category: 41 - AERONAUTICAL/ENGR

NAG 3 1921 WEST VIRGINIA UNIVERSITY 10044
MAGNETHOT THERMAL CONVECTION IN NONCONDUCTING DIAMAGNETIC FLUIDS
 07/23/1996 - 03/02/1999 FY98: \$0 Total: \$250,000
Prin. Invest.: D F EDWARDS, D D GRAY
Tech. Officer: LERC/N R HALL
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 5 6468 WEST VIRGINIA UNIVERSITY 10045
INVESTIGATION OF THE ENERGY BALANCE OF SOLAR WIND ELECTRONS: ULYSSES OBSERVATIONS
 11/13/1997 - 11/31/1998 FY98: \$33,978 Total: \$33,978
Prin. Invest.: E SCIME
Tech. Officer: C SFC/J LING
CASE Category: 11 - ASTRONOMY

NAG 8 1494 WEST VIRGINIA UNIVERSITY 10046
MARS ENVIRONMENTAL COMPATIBILITY ASSESSMENT
 06/11/1998 - 03/31/2002 FY98: \$69,199 Total: \$69,199
Prin. Invest.: T MELOY
Tech. Officer: N SFC/J POE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1496 WEST VIRGINIA UNIVERSITY 10047
TECHNOLOGY EDUCATION BIOTECHNOLOGY CURRICULUM (TBEC)
 09/23/1998 - 08/31/2000 FY98: \$45,880 Total: \$45,880
Prin. Invest.: J G WELLS
Tech. Officer: N SFC/D LONGEDDY
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4464 WEST VIRGINIA UNIVERSITY 10048
DEVELOPING NATIONALLY COMPETITIVE NASA RESEARCH CAPABILITY IN WEST VIRGINIA
 05/15/1995 - 02/28/1997 FY98: \$0 Total: \$150,000
Prin. Invest.: F C ALZONETTI
Tech. Officer: H A S MCGEE, HQ/E T SCHWARTZ
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 2 759 WEST VIRGINIA UNIVERSITY 10049
DETERMINATION OF STABILITY & CONTROL DERIVATIVES FROM THE F/A-18 HARV FROM FLIGHT DATA USING THE.....
 05/20/1992 - 10/31/1998 FY98: \$0 Total: \$280,415
Prin. Invest.: M R NAPOLITANO, J M SPAGNUOLO
Tech. Officer: A C/A H BOWERS
CASE Category: 41 - AERONAUTICAL ENGR

NCC 2 979 WEST VIRGINIA UNIVERSITY 10050
APPLIED RESEARCH IN SOFTWARE VERIFICATION & VALIDATION
 02/27/1997 - 11/30/1998 FY98: \$2,412,720 Total: \$4,389,003
Prin. Invest.: J F CALLAHAN, J SHAUB, S M ESTERBROOK
Tech. Officer: A C/D S OZBURN, ARC/K M KEMP
CASE Category: 49 - ENGINEERING, OTHER

NCC 2 6009 WEST VIRGINIA UNIVERSITY 10051
NASA/WVU EDUCATIONAL COLLABORATION
 05/09/1997 - 07/31/1999 FY98: \$31,387 Total: \$178,387
Prin. Invest.: E E GOTTLIEB
Tech. Officer: A C/T WILSON, ARC/D OZBURN
CASE Category: 22 - COMPUTER SCIENCE

NASA'S UNIVERSITY PROGRAM

WISCONSIN

NGT 40047 WEST VIRGINIA UNIVERSITY **10052**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 07/24/1991 - 09/30/1998 FY98: \$0 Total: \$1,004,000
Prin. Invest.: J T JUVEWICZ
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51370 WEST VIRGINIA UNIVERSITY **10053**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/08/1994 - 06/30/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: J G WELLS
Tech. Officer: LARC/L EVANS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 40055 WEST VIRGINIA UNIVERSITY **10054**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.
 02/12/1997 - 02/28/2001 FY98: \$256,250 Total: \$461,250
Prin. Invest.: M JARAIEDI
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50009 WEST VIRGINIA UNIVERSITY **10055**
ASSESSING THE CONSEQUENCES OF OZONE DEPLETION ON EFFECTS OF ULTRAVIOLET-B RADIATION ON PLANT LITER Q
 02/10/1997 - 08/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: W T PETERJOHN
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 50103 WEST VIRGINIA UNIVERSITY **10056**
DEBRIS SLIDE HAZARDS IN THE CENTRAL APPALACHIANS: CONTROL-LING FACTORS VIA LARGE SCALE SURFICIAL MAPP
 09/06/1997 - 08/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: S KITE
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 8 52808 WEST VIRGINIA UNIVERSITY **10057**
GRADUATE STUDENT RESEARCHERS PROGRAM
 08/23/1995 - 12/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: L E BANTA
Tech. Officer: MSFC/F SIX, MSFC/S COTHREN
CASE Category: 46 - MECHANICAL ENGR

NCC 5 71 WEST VIRGINIA WEYSLEYAN COLLEGE **10058**
SPECTROSCOPIC INVESTIGATIONS ON THE FORMATION, COM POSITION, AND PROPERTIES OF PRE-SOLAR DUST GAINS
 06/01/1994 - 04/30/1999 FY98: \$0 Total: \$35,708
Prin. Invest.: P A WITHEY
Tech. Officer: GSFC/J A NUTH, GSFC/J E ALLEN
CASE Category: 11 - ASTRONOMY

NAG 5 6961 WHEELING JESUIT COLLEGE **10059**
CLASSROOM OF THE FUTURE
 02/06/1998 - 01/31/1999 FY98: \$150,000 Total: \$150,000
Prin. Invest.: R MYERS
Tech. Officer: GSFC/N KHAZENIE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 2486 WHEELING JESUIT COLLEGE **10060**
DESIGN AND CONSTRUCTION MANAGEMENT SERVICES FOR TH E CLASS-ROOM OF THE FUTURE PROJECT
 04/25/1991 - 12/31/1996 FY98: \$0 Total: \$11,000,000
Prin. Invest.: T ACKER
Tech. Officer: HQ/F DURSO
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 107 WHEELING JESUIT COLLEGE **10061**
EXPLORING THE ENVIRONMENT
 09/22/1994 - 09/21/1997 FY98: \$0 Total: \$1,800,000
Prin. Invest.: R MYERS
Tech. Officer: GSFC/A F HASLER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCC 5 203 WHEELING JESUIT COLLEGE **10062**
CLASSROOM OF THE FUTURE
 06/09/1997 - 12/31/1998 FY98: \$3,562,106 Total: \$4,562,105
Prin. Invest.: D MILLER
Tech. Officer: GSFC/M PHELPS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NCCW 65 WHEELING JESUIT COLLEGE **10063**
NATIONAL TECHNOLOGY TRANSFER CENTER
 11/01/1994 - 10/31/1999 FY98: \$11,787,000 Total: \$46,165,119
Prin. Invest.: L W RIVER
Tech. Officer: HQ/J ROOT
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

WISCONSIN

NAG 5 1620 BELOIT COLLEGE **10064**
SUPPORT OF HST AND GTO OBSERVATORIES
 05/28/1991 - 10/30/1998 FY98: \$0 Total: \$386,165
Prin. Invest.: D J SCHROEDER
Tech. Officer: GSFC/S SOBIESKI
CASE Category: 11 - ASTRONOMY

NAG 2 636 MARQUETTE UNIVERSITY **10065**
THE EFFECT OF WEIGHTLESSNESS ON SINGLE MUSCLE FIB ER FUNC-TION IN RHESUS MONKEYS
 05/17/1990 - 09/30/1999 FY98: \$0 Total: \$809,398
Prin. Invest.: R H FITTS
Tech. Officer: ARC/C M WINGET
CASE Category: 56 - MEDICL

NAG 2 1267 MARQUETTE UNIVERSITY **10066**
EFFECT OF 2-G ON SINGLE MUSCLE FIBER FUNCATION IN RHESUS MON-KEYS
 09/15/1998 - 10/31/1998 FY98: \$14,905 Total: \$14,905
Prin. Invest.: R H FITTS
Tech. Officer: ARC/R E GRINDELAND, ARC/K L SOUZA
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 6058 MARQUETTE UNIVERSITY **10067**
"LIMB MUSCLE FUNCTION WITH UNLOADING AND AND COUNT
 07/29/1997 - 03/31/1999 FY98: \$0 Total: \$143,378
Prin. Invest.: R FITTS
Tech. Officer: GSFC/V SCHNEIDER
CASE Category: 59 - LIFE SCIENCE, OTHER

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| NAG 8 1252 MARQUETTE UNIVERSITY 10068 RESEARCH "GENERATING BINARY OPTIC MUSKS FROM AN ANALYTIC PHASE FUNCTION" 12/10/1996 - 05/15/1998 FY98: \$0 Total: \$14,025 <i>Prin. Invest.:</i> D MATTHYS, S.J., NONE <i>Tech. Officer:</i> MSFC/H COLE, MSFC/B BEABOUT <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER | NAG 3 1968 UNIV WISCONSIN-PLATTEVILLE 10076 DETERMINISTIC & PROBABILISTIC CREEP & CREEP RUPTURE ENHANCEMENT TO CARBON/CREET 09/10/1996 - 10/31/1997 FY98: \$0 Total: \$39,000 <i>Prin. Invest.:</i> O. ADAAN, PH.D. <i>Tech. Officer:</i> LERC/N N NEMETH, LERC/L A JANOSIK <i>CASE Category:</i> 46 - MECHANICAL ENGR |
| NAG 9 925 MARQUETTE UNIVERSITY 10069 RESEARCH/2-PHASE FLOW FOR SYSTEM COMPONENTS 01/24/1997 - 09/30/1997 FY98: -\$14 Total: \$4,371 <i>Prin. Invest.:</i> A B DUNCAN <i>Tech. Officer:</i> JSC/K M HURLBERT <i>CASE Category:</i> 41 - AERONAUTICAL ENGR | NAG 1 1830 UNIVERSITY OF WISCONSIN - MADISON 10077 CLOUD STATISTICS FOR NASA CLIMATE CHANGE MY 1/3 04/18/1996 - 04/17/1999 FY98: \$59,578 Total: \$154,622 <i>Prin. Invest.:</i> D VYLYIE <i>Tech. Officer:</i> LARC/D S MCDUGAL, LARC/J L RAPER <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NAGW 4376 MARQUETTE UNIVERSITY 10070 LIMB MUSCLE FUNCTION WITH UNLOADING AND COUNTERMEASURES 03/22/1995 - 09/30/1998 FY98: \$0 Total: \$270,427 <i>Prin. Invest.:</i> R H FITTS <i>Tech. Officer:</i> HQ/R SULZMAN <i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER | NAG 1 1870 UNIVERSITY OF WISCONSIN - MADISON 10078 RADIATION BUDGET STUDIES USING CERES PATHFINDER COLLOCATED AVHRR AND ERBE OBSERVATIONS 09/17/1996 - 06/30/1998 FY98: \$1 Total: \$22,720 <i>Prin. Invest.:</i> S A ACKERMAN <i>Tech. Officer:</i> LARC/B A BAUM <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NAS 9 18768 MARQUETTE UNIVERSITY 10071 EFFECTS OF WEIGHTLESSNESS ON HUMAN SINGLE MUSCLE FIBER FUNCTION FOR SLS-3 08/31/1992 - 06/30/1999 FY98: \$0 Total: \$974,542 <i>Prin. Invest.:</i> R H FITTS <i>Tech. Officer:</i> JSC/V ELLERBEE <i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER | NAG 1 1968 UNIVERSITY OF WISCONSIN - MADISON 10079 EVALUATION OF AN OPTICAL PARAMETRIC AMPLIFIER FOR USE IN A WATER VAPOR DIFFERENTIAL-ABSORPTION LIDAR 09/12/1997 - 09/30/1998 FY98: \$50,100 Total: \$50,100 <i>Prin. Invest.:</i> E W ELORANTA, P PONSARDIN <i>Tech. Officer:</i> LARC/J C BARNES, LARC/N P BARNES <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NCC 2 5228 MARQUETTE UNIVERSITY 10072 AAH CAGE OUT-LINK AND IN-LINK ANTENNA CHARACTERIZATION 07/15/1997 - 07/31/1998 FY98: \$0 Total: \$22,692 <i>Prin. Invest.:</i> D JEUTTER <i>Tech. Officer:</i> ARC/J W HINES <i>CASE Category:</i> 45 - ELECTRICAL ENGR | NAG 1 1971 UNIVERSITY OF WISCONSIN - MADISON 10080 GEOSTATIONARY ATMOSPHERIC SOUNDER (GAS) RETRIEVAL PERFORMANCE STUDIES 09/18/1997 - 09/30/1998 FY98: \$50,000 Total: \$75,000 <i>Prin. Invest.:</i> A L HUANG <i>Tech. Officer:</i> LARC/V S PARSONS, LARC/D E HINTON <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NAG 2 956 MEDICAL COLLEGE OF WISCONSIN 10073 THE EFFECTS OF MICROGRAVITY ON NEUROMUSCULAR DEVELOPMENT 01/20/1995 - 11/30/1998 FY98: \$271,835 Total: \$611,281 <i>Prin. Invest.:</i> D A RILEY <i>Tech. Officer:</i> ARC/W E HINDS, ARC/D M WINGET <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR) | NAG 1 2073 UNIVERSITY OF WISCONSIN - MADISON 10081 THE COLLECTION AND ANALYSIS OF HIGH SPECTRAL-RESOLUTION INFRARED RADIANCES AS PART OF FIRE 05/26/1998 - 05/31/2001 FY98: \$204,000 Total: \$204,000 <i>Prin. Invest.:</i> S A ACKERMAN, H RECERCOMB <i>Tech. Officer:</i> LARC/D S MCDUGAL, LARC/J RAPER <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE |
| NAG 8 1318 ST. NORBERT COLLEGE 10074 JOVE RESEARCH 01/21/1997 - 08/31/1999 FY98: \$9,534 Total: \$44,468 <i>Prin. Invest.:</i> D POISTER <i>Tech. Officer:</i> MSFC/J F DOWDY, MSFC/J R PRUITT <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER | NAG 2 859 UNIVERSITY OF WISCONSIN - MADISON 10082 THE O/H, S/H, & T/E DISTRIBUTIONS IN THE GALACTIC PLANE 09/23/1993 - 09/30/1998 FY98: \$0 Total: \$91,621 <i>Prin. Invest.:</i> E B CHURCHWELL, J S MATHIS <i>Tech. Officer:</i> ARC/L QUAIFE, ARC/C B WILTSEE <i>CASE Category:</i> 1 - ASTRONOMY |
| NAG 5 6744 UNIV OF WISCONSIN-EAU CLAIRE 10075 THE SPECTRAL EVOLUTION OF GAMMA-RAY BURST 01/12/1998 - 01/14/1999 FY98: \$6,700 Total: \$6,700 <i>Prin. Invest.:</i> L FORD <i>Tech. Officer:</i> GSFC/J NORRIS <i>CASE Category:</i> 11 - ASTRONOMY | NAG 2 1009 UNIVERSITY OF WISCONSIN - MADISON 10083 FECUNDITY OF GUAUL IN SPACELAB MICROGRAVITY 09/14/1995 - 12/31/1998 FY98: \$0 Total: \$118,654 <i>Prin. Invest.:</i> B C WENTWORTH <i>Tech. Officer:</i> ARC/C M WINGET, ARC/G C JAHNS <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR) |

NAG 2 1028 UNIVERSITY OF WISCONSIN - MADISON **10084**
GALILEO NET FLUX RADIOMETER DATA ANALYSIS
 03/06/1996 - 06/30/1998 FY98: \$0 Total: \$418,542
Prin. Invest.: L R SROMOVSKY
Tech. Officer: ARC/L E LASHER, HQ/R E YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 1189 UNIVERSITY OF WISCONSIN - MADISON **10085**
MOLECULAR GENETICS OF ROOT THIGMOPRESPONSIVENESS IN ARABIDOPSIS THALIANA
 03/19/1998 - 09/30/1998 FY98: \$72,000 Total: \$72,000
Prin. Invest.: P H MASSON
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 2 1220 UNIVERSITY OF WISCONSIN - MADISON **10086**
SKELETAL MUSCLE GROWTH OF REPAIR DURING MICROGRAVITY
 05/20/1998 - 10/31/1998 FY98: \$45,000 Total: \$45,000
Prin. Invest.: E SCHULTZ
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 3 1794 UNIVERSITY OF WISCONSIN - MADISON **10087**
DETAILED MODELING AND EXPERIMENTS OF DIESEL ENGINE FLOW, COMBUSTION AND EMISSIONS
 11/13/1995 - 11/12/2000 FY98: \$0 Total: \$200,000
Prin. Invest.: R D REITZ, C J RUTLAND
Tech. Officer: LERC/M J VALCO
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1909 UNIVERSITY OF WISCONSIN - MADISON **10088**
THERMOCAPILLARY CONVECTION IN LOW PR MATERIAL UNDER SIMULATED REDUCED-GRAVITY CONDITIONS
 07/08/1996 - 06/20/2000 FY98: \$100,000 Total: \$270,000
Prin. Invest.: S KOU
Tech. Officer: LERC/B S SINGH
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 5 647 UNIVERSITY OF WISCONSIN - MADISON **10089**
DEVELOPMENT & FLIGHT OF WIDE FIELD IMAGING SURVEY POLARIMETER
 03/01/1988 - 12/31/1998 FY98: \$360,000 Total: \$3,265,590
Prin. Invest.: K H NORDSIECK
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 674 UNIVERSITY OF WISCONSIN - MADISON **10090**
SPATIAL HETERODYNE SPECTROMETER FOR INVESTIGATION OF INTERSTELLAR FAR ULTRAVIOLET EMISSION LINES
 11/30/1990 - 01/31/1999 FY98: \$190,000 Total: \$1,855,999
Prin. Invest.: R J REYNOLDS
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 679 UNIVERSITY OF WISCONSIN - MADISON **10091**
COSMIC X-RAY PHYSICS
 03/25/1991 - 02/28/1999 FY98: \$378,423 Total: \$2,803,155
Prin. Invest.: D MCCAMMON
Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS
CASE Category: 13 - PHYSICS

NAG 5 1586 UNIVERSITY OF WISCONSIN - MADISON **10092**
A FACILITY TEAM MEMBER FOR A TROPICAL RAINFALL AND ENERGY ANALYSIS EXPERIMENT
 05/13/1991 - 11/30/1997 FY98: -\$1,606 Total: \$484,894
Prin. Invest.: V E SUOMI
Tech. Officer: GSFC/R ADLER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 1613 UNIVERSITY OF WISCONSIN - MADISON **10093**
GTO - HIGH SPEED PHOTOMETER
 05/23/1991 - 10/31/1998 FY98: \$0 Total: \$5,215,670
Prin. Invest.: R C BLESS
Tech. Officer: GSFC/S SOBIESKI
CASE Category: 11 - ASTRONOMY

NAG 5 1683 UNIVERSITY OF WISCONSIN - MADISON **10094**
A SEARCH FOR X-RAY EMISSIONS FROM B SUPERGIANTS
 07/15/1991 - 01/31/1997 FY98: -\$78 Total: \$57,399
Prin. Invest.: J P CASSINELLI
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 1841 UNIVERSITY OF WISCONSIN - MADISON **10095**
X-RAY EMISSION FROM O-STARS
 12/02/1991 - 12/14/1998 FY98: \$0 Total: \$56,912
Prin. Invest.: J P CASSINELLI
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 1852 UNIVERSITY OF WISCONSIN - MADISON **10096**
GODDARD HIGH RESOLUTION SPECTROGRAPH
 12/17/1991 - 10/31/1997 FY98: \$0 Total: \$1,096,190
Prin. Invest.: B D SAVAGE
Tech. Officer: GSFC/A SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 1894 UNIVERSITY OF WISCONSIN - MADISON **10097**
SOFT X-RAY SHADOWS OF CLOUDS NEAR THE URSA MAJOR NEUTRAL HYDROGEN
 02/10/1992 - 02/14/1998 FY98: \$0 Total: \$69,921
Prin. Invest.: W T SANDERS
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 2601 UNIVERSITY OF WISCONSIN - MADISON **10098**
MEASUREMENT AND SCALING OF CARBON BUDGETS FOR CONTAMINATED BOREAL FOREST SITES
 07/19/1994 - 08/31/1998 FY98: \$0 Total: \$784,713
Prin. Invest.: S T GOWER
Tech. Officer: GSFC/F G HALL, GSFC/P J SELLERS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2694 UNIVERSITY OF WISCONSIN - MADISON **10099**
COMPRESSION AND PROGRESSIVE TRANSMISSION OF DIGITAL IMAGES
 08/24/1994 - 09/30/1999 FY98: \$0 Total: \$578,837
Prin. Invest.: J W PERCIVAL
Tech. Officer: GSFC/N LAL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2705 UNIVERSITY OF WISCONSIN - MADISON 10100
ANOMALOUS X-RAY EMISSION FROM TAU SCO TYPE B STARS
 08/24/1994 - 02/28/1999 FY98: \$0 Total: \$28,472
Prin. Invest.: J CASSINELLI
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 2720 UNIVERSITY OF WISCONSIN - MADISON 10101
CONTINUING INVESTIGATION OF SINGLE-PHOTON CALORIMETERS FOR X-RAY SPECTROSCOPY
 09/08/1994 - 09/30/1999 FY98: \$44,925 Total: \$264,925
Prin. Invest.: D MCCAMMON
Tech. Officer: GSFC/R L KELLEY
CASE Category: 11 - ASTRONOMY

NAG 5 2722 UNIVERSITY OF WISCONSIN - MADISON 10102
CLIMATOLOGICAL AND MODELING STUDIES FOR SASS
 09/25/1994 - 09/30/1997 FY98: \$0 Total: \$121,818
Prin. Invest.: M H HITCHMAN
Tech. Officer: GSFC/R W STEWART
CASE Category: 11 - ASTRONOMY

NAG 5 2806 UNIVERSITY OF WISCONSIN - MADISON 10103
CLIMATOLOGICAL AND DYNAMICAL STUDIES OF THE MIDDLE ATMOSPHERE
 12/01/1994 - 12/14/1997 FY98: \$0 Total: \$241,874
Prin. Invest.: M H HITCHMAN
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2846 UNIVERSITY OF WISCONSIN - MADISON 10104
STATISTICAL ANALYSIS OF ATMOSPHERIC TEMPERATURE AND OZONE DATA TREND FEATURES AND COMPARISONS
 12/15/1994 - 01/14/1999 FY98: \$25,000 Total: \$127,370
Prin. Invest.: G C REINSEL
Tech. Officer: GSFC/R D MCPETERS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2854 UNIVERSITY OF WISCONSIN - MADISON 10105
MULTI-WAVELENGTH DIAGNOSTICS OF ROTATION AND NON-SPHERICAL WINDS IN THE WOLF-RAYET STAR
 12/22/1994 - 01/14/1999 FY98: \$0 Total: \$227,999
Prin. Invest.: J P CASSINELLI
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 2877 UNIVERSITY OF WISCONSIN - MADISON 10106
SATELLITE DATA DRIVEN REAL - TIME AGRICULTURAL MANAGEMENT DECISION AIDS
 01/19/1995 - 01/31/1999 FY98: \$0 Total: \$841,954
Prin. Invest.: G DIAK
Tech. Officer: GSFC/F HASLER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 2906 UNIVERSITY OF WISCONSIN - MADISON 10107
INTERCOMPARISON VISUALIZATION, AND ANALYSIS TESTBED SYSTEM FOR EOS GLOBAL ASSIMILATED DATA . . .
 03/10/1995 - 05/14/1997 FY98: \$0 Total: \$245,000
Prin. Invest.: W HIBBARD
Tech. Officer: GSFC/A F HALSER, GSFC/A J NEGRI
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 2915 UNIVERSITY OF WISCONSIN - MADISON 10108
PRE-MAIN SEQUENCE STARS FAR FROM STAR-FORMING REGIONS
 03/17/1995 - 01/31/1998 FY98: \$0 Total: \$16,083
Prin. Invest.: R MATHIEU
Tech. Officer: GSFC/R PETRE
CASE Category: 12 - CHEMISTRY

NAG 5 3021 UNIVERSITY OF WISCONSIN - MADISON 10109
A SEARCH FOR NEW GEMINGAS IN THE ROSAT ARCHIVE
 07/21/1995 - 01/31/1997 FY98: \$0 Total: \$86,491
Prin. Invest.: H JGELMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3080 UNIVERSITY OF WISCONSIN - MADISON 10110
DIFFUSE X-RAY SPECTROMETER (DXS) INVESTIGATION
 09/25/1995 - 09/30/1997 FY98: \$0 Total: \$315,282
Prin. Invest.: W T SANDERS
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3155 UNIVERSITY OF WISCONSIN - MADISON 10111
HOT GAS, EXPLOSIVE EVENTS, AND STRUCTURE IN THE INTERSTELLAR MEDIUM
 01/17/1996 - 01/14/1999 FY98: \$86,400 Total: \$200,470
Prin. Invest.: D P COX
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3193 UNIVERSITY OF WISCONSIN - MADISON 10112
CONTRAIL AND CLOUD EFFECT SPECIAL STUDY (SUCCESS)
 04/12/1996 - 01/14/1997 FY98: \$50,000 Total: \$209,000
Prin. Invest.: S ACKERMAN
Tech. Officer: GSFC/S C TSAY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3315 UNIVERSITY OF WISCONSIN - MADISON 10113
THE VELOCITY OF WOLF-RAYET WINDS FROM IR LINE AND CONTINUUM OBSERVATIONS.
 07/31/1996 - 01/14/1998 FY98: \$48,000 Total: \$235,299
Prin. Invest.: J P CASSINELLI
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3377 UNIVERSITY OF WISCONSIN - MADISON 10114
ULTRAVIOLET INTERSTELLAR POLARIZATION AND NEW INSIGHTS INTO INTERSTELLAR DUST GRAINS
 09/06/1996 - 01/14/1999 FY98: \$20,515 Total: \$30,169
Prin. Invest.: K H NORDSIECK
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3493 UNIVERSITY OF WISCONSIN - MADISON 10115
"EVAPOTRANSPIRATION AND SENSIBLE HEATING EVALUATED IN-SITU USING AN OPTIMAL ESTIMATION APPROACH
 12/30/1996 - 03/30/1998 FY98: \$65,000 Total: \$180,000
Prin. Invest.: G R DIAK
Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3506 UNIVERSITY OF WISCONSIN - MADISON **10116**
EXPERIMENTAL INVESTIGATION OF COOLING AND REHEATING OF NEUTRON STARS
 10/30/1996 - 04/30/1998 FY98: \$0 Total: \$122,000
Prin. Invest.: H B OGELMAN
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3513 UNIVERSITY OF WISCONSIN - MADISON **10117**
INTEGRATING BIOGEOCHEMICAL ECOLOGICAL AND HYDROLOGIC DYNAMIC BIOSPHERE
 11/18/1996 - 11/14/1999 FY98: \$573,009 Total: \$867,320
Prin. Invest.: J A FOLEY
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3524 UNIVERSITY OF WISCONSIN - MADISON **10118**
STUDIES OF THE HOT INTERSTELLAR MEDIUM AND HALO OF STRUCTURE & SPECTRAL CHARACTERISTICS OF THE LOW E
 11/13/1996 - 11/14/1998 FY98: \$129,000 Total: \$158,390
Prin. Invest.: W T SANDERS
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3700 UNIVERSITY OF WISCONSIN - MADISON **10119**
TARGET OF OPPORTUNITY REOBSERVATION OF AG DRACONIS
 10/24/1997 - 10/31/1998 FY98: \$12,000 Total: \$12,000
Prin. Invest.: C ANDERSON
Tech. Officer: GSFC/R OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 3703 UNIVERSITY OF WISCONSIN - MADISON **10120**
EFFECTS AND DIAGNOSTICS OF EUV/X-RAY IONIZATION IN AND W
 01/24/1997 - 05/31/1998 FY98: \$0 Total: \$50,000
Prin. Invest.: J J MACFARLANE
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3769 UNIVERSITY OF WISCONSIN - MADISON **10121**
NEW MATHEMATICAL METHODS FOR VARIATIONAL OBJECTIVE ESTIMATION
 02/13/1997 - 12/31/1998 FY98: \$90,000 Total: \$180,000
Prin. Invest.: G WAHBA, NONE
Tech. Officer: GSFC/K H BERGMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3943 UNIVERSITY OF WISCONSIN - MADISON **10122**
COLLABORATIVE ANALYSIS AND VISUALIZATION OF SPACE JAVA AND VISAD
 03/03/1997 - 02/28/1999 FY98: \$146,000 Total: \$289,000
Prin. Invest.: D T SANDERS
Tech. Officer: GSFC/J BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 4032 UNIVERSITY OF WISCONSIN - MADISON **10123**
HZE RADIATION GENOTOXICITY IN CULTURED MAMMALIAN C
 02/27/1997 - 10/31/1997 FY98: -\$69,541 Total: \$95,891
Prin. Invest.: S I SUKHAVREV
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4259 UNIVERSITY OF WISCONSIN - MADISON **10124**
THE MEASUREMENT OF VACUUM ULTRAVIOLET ATOMIC TRANS ASTROPHYSICAL INTEREST
 04/09/1997 - 12/31/1998 FY98: \$0 Total: \$88,500
Prin. Invest.: D E LAWLER
Tech. Officer: GSFC/H HASAN
CASE Category: 11 - ASTRONOMY

NAG 5 4398 UNIVERSITY OF WISCONSIN - MADISON **10125**
MODELING AND ANALYSIS OF GLOBAL AND REGIONAL CLIMATE TO ATMOSPHERIC HYDROLOGIC PROCESSES
 04/16/1997 - 10/31/1998 FY98: \$110,000 Total: \$220,000
Prin. Invest.: D R JOHNSON
Prin. Invest.: NONE
Tech. Officer: GSFC/S SCHUBERT
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4484 UNIVERSITY OF WISCONSIN - MADISON **10126**
CO-INVESTIGATOR TO NRA-96-OSS-07 "PRECISION BALLOON OF ANISOTROPY IN THE CMBR"
 05/30/1997 - 05/31/1999 FY98: \$43,000 Total: \$93,000
Prin. Invest.: P TIMBIE
Tech. Officer: GSFC/R SILVERBERG
CASE Category: 13 - PHYSICS

NAG 5 4596 UNIVERSITY OF WISCONSIN - MADISON **10127**
MOLECULAR CLONING OF THE ARABIDOPSIS THAILIANA AGR
 05/16/1997 - 02/28/1999 FY98: \$86,245 Total: \$221,858
Prin. Invest.: P MASSON
Tech. Officer: GSFC/T SCOTT
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 5 4625 UNIVERSITY OF WISCONSIN - MADISON **10128**
NATURE OF THE X-RAY SPECTRUM OF W50 ASSOCIATED WITH
 05/21/1997 - 05/31/1999 FY98: \$0 Total: \$26,092
Prin. Invest.: H OGELMAN
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 4751 UNIVERSITY OF WISCONSIN - MADISON **10129**
CHARACTERIZING THE SPATIAL AND TEMPORAL DISTRIBUTION THICKNESS OVER THE ATLANTIC BASIN UTILIZING GOES-
 06/17/1997 - 05/31/1999 FY98: \$50,000 Total: \$100,000
Prin. Invest.: E PRINS
Tech. Officer: GSFC/B N HOLBEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 4761 UNIVERSITY OF WISCONSIN - MADISON **10130**
AN EUVE STUDY OF THE B STARS EPSILON CMA AND BETA
 06/10/1997 - 06/14/1998 FY98: \$0 Total: \$14,478
Prin. Invest.: J P CASSINELLI
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 4930 UNIVERSITY OF WISCONSIN - MADISON **10131**
PARADISE CLUSTERS: INEXPENSIVE SCALEABLE SUPPORT FOR STANDARDIZED ACCESS TO EOSDIS DATA SETS
 10/08/1997 - 06/30/1998 FY98: \$313,600 Total: \$313,600
Prin. Invest.: D DEWITT
Tech. Officer: GSFC/R KREIDER
CASE Category: 22 - COMPUTER SCIENCE

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| <p>NAG 5 4974 UNIVERSITY OF WISCONSIN - MADISON 10132 THE DIURNAL CYCLE FROM HISTORICAL GEOSTATIONARY DATA 10/03/1997 - 06/30/1999 FY98: \$399,267 Total: \$399,267 <i>Prin. Invest.:</i> F P BRETHERTON <i>Tech. Officer:</i> GSFC/J DODGE CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p> | <p>NAG 5 6787 UNIVERSITY OF WISCONSIN - MADISON 10140 GROUND-BASED OBSERVATION OF [IO] 6300A EMISSION FROM IO'S ATMOSPHERE 02/06/1998 - 03/31/1999 FY98: \$90,000 Total: \$90,000 <i>Prin. Invest.:</i> F SCHERB <i>Tech. Officer:</i> GSFC/T MORGAN CASE Category: 11 - ASTRONOMY</p> |
| <p>NAG 5 5091 UNIVERSITY OF WISCONSIN - MADISON 10133 NUV-FUV PHOTO-POLARIMETRY OF C(1)1657A AND DUST CONTINUUM EMISSIONS FROM COMET HALE-BOPP 10/23/1996 - 02/28/1999 FY98: \$43,546 Total: \$139,190 <i>Prin. Invest.:</i> W M HARRIS <i>Tech. Officer:</i> GSFC/L W GURKIN CASE Category: 13 - PHYSICS</p> | <p>NAG 5 6788 UNIVERSITY OF WISCONSIN - MADISON 10141 CLOUDS ON NEPTUNE: MOTIONS, EVOLUTION, STRUCTURE 02/06/1998 - 03/31/1999 FY98: \$90,000 Total: \$90,000 <i>Prin. Invest.:</i> L A SROMOVSKY <i>Tech. Officer:</i> GSFC/T MORGAN CASE Category: 11 - ASTRONOMY</p> |
| <p>NAG 5 6032 UNIVERSITY OF WISCONSIN - MADISON 10134 THE EVOLUTION OF GALAXY IMAGE STRUCTURE TO Z=3 10/08/1997 - 10/14/1998 FY98: \$56,000 Total: \$56,000 <i>Prin. Invest.:</i> M BERSHADY <i>Tech. Officer:</i> GSFC/D WEST CASE Category: 11 - ASTRONOMY</p> | <p>NAG 5 6833 UNIVERSITY OF WISCONSIN - MADISON 10142 THE MEASUREMENT OF VACUUM ULTRAVIOLET ATOMIC TRANSITION PROBABILITIES OF ASTROPHYSICAL INTEREST 01/07/1998 - 12/31/1998 FY98: \$90,000 Total: \$90,000 <i>Prin. Invest.:</i> J AWLER <i>Tech. Officer:</i> GSFC/H HASAN CASE Category: 11 - ASTRONOMY</p> |
| <p>NAG 5 6248 UNIVERSITY OF WISCONSIN - MADISON 10135 PLANETARY IMAGING FOURIER TRANSFORM SPECTROMETER 08/19/1997 - 07/31/1999 FY98: \$46,750 Total: \$196,750 <i>Prin. Invest.:</i> D A SROMOVSKY <i>Tech. Officer:</i> GSFC/B CAMPBELL CASE Category: 32 - GEOLOGICAL SCIENCE</p> | <p>NAG 5 6993 UNIVERSITY OF WISCONSIN - MADISON 10143 ASCA PROPOSAL - DETERMINING THE COMPOSITION OF THE VELA JET, PART 2A HIGH RESO 02/06/1998 - 01/14/1999 FY98: \$17,400 Total: \$17,400 <i>Prin. Invest.:</i> C MARKWARDT <i>Tech. Officer:</i> GSFC/N WHITE CASE Category: 11 - ASTRONOMY</p> |
| <p>NAG 5 6342 UNIVERSITY OF WISCONSIN - MADISON 10136 THE ISOTOPIC COMPOSITION OF IRON: A CHEMICAL FINGERPRINT 09/15/1997 - 08/31/1999 FY98: \$0 Total: \$63,000 <i>Prin. Invest.:</i> B L BEARD <i>Tech. Officer:</i> GSFC/J BOYCE CASE Category: 11 - ASTRONOMY</p> | <p>NAG 5 7026 UNIVERSITY OF WISCONSIN - MADISON 10144 AN ULTRA-LOW BANDWIDTH DIGITAL IMAGING SYSTEM FOR SPACECRAFT 02/26/1998 - 09/30/1998 FY98: \$63,000 Total: \$63,000 <i>Prin. Invest.:</i> J V PERCIVAL <i>Tech. Officer:</i> GSFC/R SPAGNUOLO CASE Category: 42 - ASTRONAUTICAL ENGR</p> |
| <p>NAG 5 6457 UNIVERSITY OF WISCONSIN - MADISON 10137 VALIDATION OF ASTER AND MODIS SURFACE-TEMPERATURE AND VEGETATION PRODUCTS WITH SURFACE-FLUX APPLICATIONS 10/15/1997 - 09/30/1999 FY98: \$399,923 Total: \$399,923 <i>Prin. Invest.:</i> S GOWER <i>Tech. Officer:</i> GSFC/D STARR CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p> | <p>NAG 5 7101 UNIVERSITY OF WISCONSIN - MADISON 10145 A SALT PILL ENGINEERING MODEL AND ADIABATIC DEMAGNETIZATION-REFRIGERATOR (ADR) DESIGN 03/13/1998 - 03/31/1999 FY98: \$300,000 Total: \$300,000 <i>Prin. Invest.:</i> D MCCAMMON <i>Tech. Officer:</i> GSFC/R KELLEY CASE Category: 13 - PHYSICS</p> |
| <p>NAG 5 6535 UNIVERSITY OF WISCONSIN - MADISON 10138 REMOTE SENSING TEACHING AND RESEARCH IN SUPPORT OF CREATING A VISION FOR THE ENVIRONMENT AS A WHOLE 10/24/1997 - 09/30/1999 FY98: \$423,969 Total: \$423,969 <i>Prin. Invest.:</i> D MACKAY <i>Tech. Officer:</i> GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p> | <p>NAG 5 7192 UNIVERSITY OF WISCONSIN - MADISON 10146 ENHANCEMENTS TO THE GOES ARCHIVE 03/23/1998 - 03/31/2000 FY98: \$65,860 Total: \$65,860 <i>Prin. Invest.:</i> F BRETHERTON <i>Tech. Officer:</i> GSFC/J DODGE CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p> |
| <p>NAG 5 6546 UNIVERSITY OF WISCONSIN - MADISON 10139 SYNOPTIC MONITORING OF THE IO TORUS: SPECTROSCOPY, DOPPLER IMAGERY, AND PHOTOMETRY 10/29/1997 - 10/31/1998 FY98: \$60,329 Total: \$60,329 <i>Prin. Invest.:</i> F SCHERB <i>Tech. Officer:</i> GSFC/R OLIVERSEN CASE Category: 11 - ASTRONOMY</p> | <p>NAG 5 7214 UNIVERSITY OF WISCONSIN - MADISON 10147 PRESIDENTIAL EARLY CAREER AWARD FOR SCIENTISTS AND ENGINEERS 04/06/1998 - 04/30/2001 FY98: \$100,000 Total: \$100,000 <i>Prin. Invest.:</i> J FOLEY <i>Tech. Officer:</i> GSFC/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p> |

NAG 5 7298 UNIVERSITY OF WISCONSIN - MADISON **10148**
CARBON BUDGETS FOR BOREAS AND OTHER BOREAL FORESTS : TOWARDS A BETTER UNDERSTANDING OF FACTORS IN
 04/24/1998 - 04/30/2000 FY98: \$87,999 Total: \$87,999
Prin. Invest.: S T GOWER
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 7418 UNIVERSITY OF WISCONSIN - MADISON **10149**
SPECTRAL AND RADIOMETRIC CALIBRATION OF THE IMG FOR ADEOS: CHARACTERIZATION AND VALIDATION
 06/02/1998 - 05/31/1999 FY98: \$40,000 Total: \$40,000
Prin. Invest.: H E REVERCOMB
Tech. Officer: GSFC/O W THIELE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7444 UNIVERSITY OF WISCONSIN - MADISON **10150**
A COMPREHENSIVE INVESTIGATION OF THE STRUCTURING OF THE INTERSTELLAR MEDIUM BY MASSIVE STARS - I
 06/09/1998 - 06/14/1999 FY98: \$30,000 Total: \$30,000
Prin. Invest.: B P WAKKER
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 7572 UNIVERSITY OF WISCONSIN - MADISON **10151**
"A STUDY OF ATMOSPHERIC SCATTERING CONTRIBUTIONS TO GLAS LIDAR RETURNS FROM THE EARTH'S SURFACE"
 07/24/1998 - 09/30/1999 FY98: \$10,000 Total: \$10,000
Prin. Invest.: E W ELORANTA
Tech. Officer: GSFC/J D SPINHIRNE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7605 UNIVERSITY OF WISCONSIN - MADISON **10152**
CRITICAL REVIEW OF CHINESE RESEARCH ON THE SOLAR INFLUENCES ON CLIMATE
 07/22/1998 - 07/31/2001 FY98: \$69,572 Total: \$69,572
Prin. Invest.: P WANG
Tech. Officer: GSFC/D EVANS
CASE Category: 11 - ASTRONOMY

NAG 5 7626 UNIVERSITY OF WISCONSIN - MADISON **10153**
ANALYSIS OF THE IUE SPECTRA OBTAINED DURING THE SHOEMAKER/LEVY ENCOUNTER
 08/03/1998 - 09/30/1999 FY98: \$62,665 Total: \$62,665
Prin. Invest.: D M HARRIS
Tech. Officer: GSFC/R BEEBE
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 7661 UNIVERSITY OF WISCONSIN - MADISON **10154**
A STUDY OF UNCERTAINTIES FOR MODIS CLOUD RETRIEVALS OF OPTICAL THICKNESS AND EFFECTIVE RADIUS
 09/02/1998 - 09/30/1999 FY98: \$56,051 Total: \$56,051
Prin. Invest.: D PINCUS
Tech. Officer: GSFC/D STARR
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1278 UNIVERSITY OF WISCONSIN - MADISON **10155**
ANALYSIS OF CONTAINERLESS PROCESSING & UNDERCOOLED SOLIDIFICATION MICROSTRUCTURES
 04/22/1996 - 04/21/2000 FY98: \$50,000 Total: \$200,000
Prin. Invest.: J H PEREPEZKO
Tech. Officer: MSFC/D R WOODARD, MSFC/R W ALLEN
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

NAG 8 1320 UNIVERSITY OF WISCONSIN - MADISON **10156**
RESEARCH DEVELOPMENT OF ATMOSPHERIC PHYSICAL RETRIEVAL METHODOLOGIES USING SATELLITE DATA
 01/31/1997 - 01/31/1999 FY98: \$50,000 Total: \$100,000
Prin. Invest.: G DIAK
Tech. Officer: MSFC/F R ROBERTSON, MSFC/J ARNOLD
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 8 1341 UNIVERSITY OF WISCONSIN - MADISON **10157**
FOR RESEARCH "SYNCHROTRON RADIATION FUSION DRIVE FOR SPACE PROPULSION"
 03/19/1997 - 01/31/1998 FY98: \$0 Total: \$75,000
Prin. Invest.: J F SANTAUARIUS
Tech. Officer: MSFC/W EMRISH
CASE Category: 13 - PHYSICS

NAG 8 1459 UNIVERSITY OF WISCONSIN - MADISON **10158**
R/S PHYSICAL SIMULATION OF MARANGONI CONVECTION IN WELD POOLS
 02/01/1998 - 01/31/2002 FY98: \$63,333 Total: \$63,333
Prin. Invest.: S KOU
Tech. Officer: MSFC/C TALLEY
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 8 1460 UNIVERSITY OF WISCONSIN - MADISON **10159**
R/S DYNAMIC REDUCTION AND THE CREATION OF FINE GRAINED CERAMICS FROM INVISCID MELTS
 02/01/1998 - 01/31/2002 FY98: \$66,667 Total: \$66,667
Prin. Invest.: R F COOPER
Tech. Officer: MSFC/C TALLEY
CASE Category: 13 - PHYSICS

NAG 9 855 UNIVERSITY OF WISCONSIN - MADISON **10160**
FOULANT RESISTANT PHOTOCATALYTIC CERAMIC ULTRAFILTRATION MEMBRANES
 11/09/1995 - 10/30/1997 FY98: \$0 Total: \$102,987
Prin. Invest.: M ANDERSON
Tech. Officer: JSC/L DALL-BAUMAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 9 953 UNIVERSITY OF WISCONSIN - MADISON **10161**
INVESTIGATION OF MIR LIFE ASSESSMENT
 07/23/1997 - 07/31/1999 FY98: \$0 Total: \$60,260
Prin. Invest.: D C KAMMER
Tech. Officer: JSC/J D DAGEN
CASE Category: 42 - ASTRONAUTICAL ENGR

NAG 9 1008 UNIVERSITY OF WISCONSIN - MADISON **10162**
CONTROL-CREW NETWORK COMMUNICATIONS DURING ROUTINE AND NON-ROUTINE EVENTS
 05/01/1998 - 04/30/1999 FY98: \$92,358 Total: \$92,358
Prin. Invest.: B S CALDWELL
Tech. Officer: JSC/J DETROVE
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG 9 1039 UNIVERSITY OF WISCONSIN - MADISON **10163**
MEASUREMENT OF BODY COMPOSITION FOR NUTRITIONAL ASSESSMENT IN MICROGRAVITY
 06/13/1998 - 07/15/1999 FY98: \$48,000 Total: \$48,000
Prin. Invest.: D SCHOELLER
Tech. Officer: KSC/C SAWIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 975 UNIVERSITY OF WISCONSIN - MADISON **10164**
COMMERCIAL DEVELOPMENT OF SPACE
 09/01/1986 - 09/30/1997 FY98: \$0 Total: \$12,266,500
Prin. Invest.: J G BOLLINGER, N DUFFIE
Tech. Officer: HQ/V CEVENINI, HQ/A VILLAMIL
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 2908 UNIVERSITY OF WISCONSIN - MADISON **10165**
THE MEASUREMENT OF VACUUM ULTRAVIOLET ATOMIC TRANSITION PROBABILITIES OF ASTROPHYSICAL INTEREST
 02/20/1992 - 12/31/1997 FY98: \$0 Total: \$440,500
Prin. Invest.: J E LAWLER
Tech. Officer: HQ/R STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 2961 UNIVERSITY OF WISCONSIN - MADISON **10166**
SOME NEW MATHEMATICAL METHODS OF VARIATIONAL OBJECTIVE ANALYSIS
 10/09/1992 - 12/31/1996 FY98: \$0 Total: \$425,000
Prin. Invest.: G WAHBA
Tech. Officer: HQ/K H BERGNAN, HQ/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 3318 UNIVERSITY OF WISCONSIN - MADISON **10167**
ASSESSING THE GEOMORPHIC EVOLUTION AND HYDROGRAPHIC CHANGES INDUCED BY WINTER STORMS ALONG THE
 02/02/1993 - 09/30/1997 FY98: \$0 Total: \$423,302
Prin. Invest.: W P MENZEL, O K HUH
Tech. Officer: HQ/M BALTUCK
CASE Category: 32 - GEOLOGICAL SCIENCE

NAGW 3319 UNIVERSITY OF WISCONSIN - MADISON **10168**
HIGH SPECTRAL RESOLUTION OBSERVATIONS OF IO AND COMETS
 01/04/1993 - 09/30/1997 FY98: \$0 Total: \$252,805
Prin. Invest.: F SCHERH
Tech. Officer: HQ/H C BRINTON
CASE Category: 11 - ASTRONOMY

NAGW 3804 UNIVERSITY OF WISCONSIN - MADISON **10169**
INVESTIGATION OF BIOMASS BURING AND AEROSOL LOADING AND TRANSPORT
 10/29/1993 - 08/31/1997 FY98: \$0 Total: \$290,021
Prin. Invest.: P MENZEL, NONE
Tech. Officer: HQ/J C DODGE, HQ/A C JANETOS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3877 UNIVERSITY OF WISCONSIN - MADISON **10170**
"ACCRET. DISKS & PLANET. SYSTE. IN NEWLY FORMED, MASSIVE STARS.."
 02/28/1994 - 09/30/1998 FY98: \$0 Total: \$235,685
Prin. Invest.: E CHURCHWELL
Tech. Officer: HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NAGW 3895 UNIVERSITY OF WISCONSIN - MADISON **10171**
UNIV WISC.; PARADISE - A PARALLEL INFORMATION SYSTEM FOR EOS-DIS
 03/31/1994 - 09/30/1997 FY98: \$0 Total: \$459,971
Prin. Invest.: D J DEWITT
Tech. Officer: HQ/G H MUCKLOW, HQ/J H BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAGW 3914 UNIVERSITY OF WISCONSIN - MADISON **10172**
INGESTING DATA USING WORKSTATION CLUSTERS
 04/14/1994 - 09/30/1997 FY98: \$0 Total: \$564,201
Prin. Invest.: M J VNY
Tech. Officer: HQ/G H MUCKLOW, HQ/J H BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAGW 3921 UNIVERSITY OF WISCONSIN - MADISON **10173**
ANALYSIS AND VISUALIZATION OF SEQUENCE DATA
 04/08/1994 - 09/30/1997 FY98: \$0 Total: \$593,696
Prin. Invest.: R HAMAKRISHNAN
Tech. Officer: HQ/G H MUCKLOW, HQ/J H BREDEKAMP
CASE Category: 22 - COMPUTER SCIENCE

NAGW 3935 UNIVERSITY OF WISCONSIN - MADISON **10174**
RADIATIVE ENERGY BUDGET STUDIES USING OBSERVATIONS FROM EARTH
 04/08/1994 - 09/30/1997 FY98: \$0 Total: \$377,214
Prin. Invest.: S J ACKERMAN, NONE
Tech. Officer: HQ/J C DODGE, HQ/R A SCHIFFER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAGW 4022 UNIVERSITY OF WISCONSIN - MADISON **10175**
SPACE EXPERIMENT OF TUBER DEVELOPMENT AND STARCH ACCUMULATION FOR CELESS"
 06/23/1994 - 09/30/1997 FY98: \$0 Total: \$216,908
Prin. Invest.: T V TIBBITTS, J G CROXDALE, C S BROWN
Tech. Officer: HQ/M M AVERNER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 4053 UNIVERSITY OF WISCONSIN - MADISON **10176**
MOLECULAR GENETICS OF ROOT THIGMORESPONSIVENESS IN ARABIDOPSIS THALIANA
 06/30/1994 - 03/31/1998 FY98: \$0 Total: \$384,006
Prin. Invest.: P MASSON
Tech. Officer: HQ/T W HALSTEAD
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAGW 4138 UNIVERSITY OF WISCONSIN - MADISON **10177**
EVAPOTRANSPIRATION AND SENSIBLE HEATING EVALUATED FROM SATELLITE AND IN-SITU DATA USING OPTIMAL
 10/27/1994 - 09/30/1997 FY98: \$0 Total: \$225,000
Prin. Invest.: G F DIAKPrin. Invest.: NONE
Tech. Officer: HQ/M Y WEI/J S THEON10
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 4229 UNIVERSITY OF WISCONSIN - MADISON **10178**
PARADISE CLUSTERS: INEXPENSIVE SCALABLE SUPPORT FOR STANDARDIZED ACCESS TO EOSDIS DATA SETS
 01/13/1995 - 09/30/1997 FY98: \$0 Total: \$904,086
Prin. Invest.: D C EWITT
Tech. Officer: HQ/R S MCGINNIS
CASE Category: 22 - COMPUTER SCIENCE

NAGW 4273 UNIVERSITY OF WISCONSIN - MADISON **10179**
THE TEST AND EVALUATION OF UV DETECTORS
 02/20/1995 - 12/31/1997 FY98: \$0 Total: \$42,000
Prin. Invest.: C L JOSEPH
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER
CASE Category: 11 - ASTRONOMY

NAGW 4527 UNIVERSITY OF WISCONSIN - MADISON **10180**
THE EFFECTS OF ROTATION ON STELLAR WINDS ASYMMETRIES AND BIPOLAR STRUCTURES
 06/16/1995 - 09/30/1997 FY98: -\$192 Total: \$99,808
Prin. Invest.: J P CASSINELLI
Tech. Officer: HQ/G R RIEGLER
CASE Category: 11 - ASTRONOMY

NAGW 4651 UNIVERSITY OF WISCONSIN - MADISON **10181**
DESIGN AND DEVELOPMENT OF INSTRUMENTATION FOR A MUTUAL OCCULTATION EXPERIMENT USING MARS ORBITERS
 08/10/1995 - 06/30/1997 FY98: \$0 Total: \$118,900
Prin. Invest.: J ANDERSON
Tech. Officer: HQ/T KOSTIUK
CASE Category: 11 - ASTRONOMY

NAGW 5219 UNIVERSITY OF WISCONSIN - MADISON **10182**
DESIGN & DEVELOPMENT OF THE OCCULTATION RECEIVER DIGITAL SIGNAL PROCESSOR FOR MUTUAL OCCULTATION
 11/18/1996 - 09/30/1997 FY98: \$0 Total: \$112,840
Prin. Invest.: W W ANDERSON
Tech. Officer: HQ/T KOSTIUK, HQ/H C BRINTON
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG10 183 UNIVERSITY OF WISCONSIN - MADISON **10183**
MICRO GRAVITY EFFECTS DURING FERTILIZATION CELL DIVISION
 02/15/1996 - 02/14/1997 FY98: \$0 Total: \$118,999
Prin. Invest.: H SCHATTEN
Tech. Officer: KSC/W KNOTT
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG10 206 UNIVERSITY OF WISCONSIN - MADISON **10184**
CUE COLLABORATIVE UKRAINIAN EXPERIMENT EDUCATION PROJECT
 03/31/1997 - 09/30/1998 FY98: \$114,492 Total: \$240,243
Prin. Invest.: P WILLIAMS
Tech. Officer: KSC/W M KNOTT
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAS 1 96004 UNIVERSITY OF WISCONSIN - MADISON **10185**
IDIQ FOR SATELLITE DATA/SITE LICENSE
 05/01/1996 - 04/30/1999 FY98: \$60,500 Total: \$133,080
Prin. Invest.: N APPLICABLE
Tech. Officer: LARC/R C HUFFMAN, JR., LARC/P MINNIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 96030 UNIVERSITY OF WISCONSIN - MADISON **10186**
CLIMATOLOGICAL AND MODELING SAGE DATA
 06/20/1996 - 06/19/1999 FY98: \$110,000 Total: \$293,000
Prin. Invest.: M H HITCHMAN
Tech. Officer: LARC/G L MADDREA
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 26777 UNIVERSITY OF WISCONSIN - MADISON **10187**
DEVELOPMENT OF ULTRAVIOLET PHOTO-POLARIMETER EXPERIMENT
 09/04/1981 - 06/30/1998 FY98: \$0 Total: \$20,709,720
Prin. Invest.: A D CODE, K NORDSIECK, NONE
Tech. Officer: MSFC/J H OWENS
CASE Category: 11 - ASTRONOMY

NAS 5 30131 UNIVERSITY OF WISCONSIN - MADISON **10188**
SPACE TELESCOPE IMAGINE SPECTROGRAPH SUPPORT
 09/22/1987 - 09/30/2001 FY98: \$143,000 Total: \$796,954
Prin. Invest.: F ROESLER
Tech. Officer: GSFC/H D VITAGLIANO
CASE Category: 11 - ASTRONOMY

NAS 5 31367 UNIVERSITY OF WISCONSIN - MADISON **10189**
EOS STUDY
 12/30/1991 - 12/14/2001 FY98: \$789,000 Total: \$3,074,445
Prin. Invest.: P MENZEL
Tech. Officer: GSFC/D TOLL, GSFC/B CONBOY
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 31375 UNIVERSITY OF WISCONSIN - MADISON **10190**
EOS AIRS INVESTIGATION
 01/13/1992 - 12/14/2001 FY98: \$300,000 Total: \$1,482,889
Prin. Invest.: H REVERCOMB
Tech. Officer: GSFC/E KREINS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 5 31377 UNIVERSITY OF WISCONSIN - MADISON **10191**
EOS INVESTIGATION: ALGORITHM DEVELOPMENT WITH HIS/ AIRS
 01/08/1992 - 12/14/2001 FY98: \$225,000 Total: \$1,368,640
Prin. Invest.: W L SMITH
Tech. Officer: GSFC/E KREINS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS 5 33015 UNIVERSITY OF WISCONSIN - MADISON **10192**
GLRS SCIENCE TEAM MEMBER STUDY
 11/01/1989 - 10/31/1998 FY98: \$85,999 Total: \$531,119
Prin. Invest.: C BENTLEY
Tech. Officer: GSFC/G SOFFEN
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAS13 98007 UNIVERSITY OF WISCONSIN - MADISON **10193**
PROVIDE ALL RESOURCES NECESSARY TO FURNISH SCIENTIFIC DATA PRODUCT/SET
 12/04/1997 - 06/02/1998 FY98: \$143,227 Total: \$143,227
Prin. Invest.: J T YOUNG
Tech. Officer: SSCK WITCHER
CASE Category: 22 - COMPUTER SCIENCE

NCC 2 542 UNIVERSITY OF WISCONSIN - MADISON **10194**
PSYCHOPHYSICAL EVALUATION OF THREE-DIMENSIONAL AUDITORY DISPLAYS
 05/01/1988 - 10/31/1998 FY98: \$125,000 Total: \$1,408,835
Prin. Invest.: F L WIGHTMAN
Tech. Officer: ARC/E M WENZEL
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 5260 UNIVERSITY OF WISCONSIN - MADISON **10195**
STUDY OF MEMORY SYSTEM PERFORMANCE FOR FLUID FLOW POST-PROCESSING TOOLS
 03/17/1998 - 02/28/1999 FY98: \$49,980 Total: \$49,980
Prin. Invest.: P CAO
Tech. Officer: ARC/M GERALD-YAMASAKI
CASE Category: 22 - COMPUTER SCIENCE

NCC 5 294 UNIVERSITY OF WISCONSIN - MADISON **10196**
HIGH RESOLUTION CARBON EXCHANGE OVER LARGE-SCALE AMAZONIA
BASED ON MODELING AND GOES SATELLITE
 06/10/1998 - 02/28/1999 FY98: \$31,900 Total: \$31,900
Prin. Invest.: J M NORMAN
Tech. Officer: GSFC/D W DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 335 UNIVERSITY OF WISCONSIN - MADISON **10197**
THE EFFECTS OF TROPICAL FOREST CONVERSION: ECOLOGICAL
RESEARCH IN THE LARGE-SCALE BIOSPHERE-ATMOSPHERE
 06/16/1998 - 06/30/1999 FY98: \$28,235 Total: \$28,235
Prin. Invest.: J FOLEY
Tech. Officer: GSFC/D DEERING
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NCC 5 354 UNIVERSITY OF WISCONSIN - MADISON **10198**
"GSFC COOPERATIVE GRADUATE RESEARCH ASSISTANTSHIPS"
 08/04/1998 - 08/31/1999 FY98: \$50,000 Total: \$50,000
Prin. Invest.: M H HITCHMAN
Tech. Officer: GSFC/A J NEGRİ
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 5 365 UNIVERSITY OF WISCONSIN - MADISON **10199**
MODELING WETLANDS AND THEIR ROLE IN HYDROLOGICAL AND BIO-
GEOCHEMICAL CYCLES
 09/24/1998 - 09/30/1999 FY98: \$25,033 Total: \$25,033
Prin. Invest.: J A FOLEY
Tech. Officer: HQ/L TRAVIS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 8 129 UNIVERSITY OF WISCONSIN - MADISON **10200**
R/S "CONTINUATION SUPPORT FOR WISCONSIN CENTER FOR SPACE
AUTHORIZATION & ROBOTICS"
 01/30/1997 - 08/31/2000 FY98: \$1,367,000 Total: \$3,160,900
Prin. Invest.: R J BULA
Tech. Officer: MSFC/M NALL
CASE Category: 42 - ASTRONAUTICAL ENGR

NCC13 17 UNIVERSITY OF WISCONSIN - MADISON **10201**
VISITING INVESTIGATOR PROGRAM SANE
 09/27/1996 - 12/31/1998 FY98: \$168,750 Total: \$293,750
Prin. Invest.: T M LILLENSAND
Tech. Officer: SSC/H CARR
CASE Category: 32 - GEOLOGICAL SCIENCE

NGT 30271 UNIVERSITY OF WISCONSIN - MADISON **10202**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 10/10/1994 - 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: S ACKERMAN
Tech. Officer: HQ/R A SCHIFFER, HQ/G ASRAR
CASE Category: 99 - MULTIDISCIPL, OTHER

NGT 30346 UNIVERSITY OF WISCONSIN - MADISON **10203**
GLOBAL CHANGE FELLOWSHIP PROGRAM
 08/16/1995 - 12/31/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: J E KUTZBACH
Tech. Officer: HQ/M BALTUCK, HQ/G ASRAR
CASE Category: 33 - OCEANOGRAPHY

NGT 51132 UNIVERSITY OF WISCONSIN - MADISON **10204**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/28/1993 - 08/31/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: E CHURCHWELL
Tech. Officer: HQ/D HOLLAND
CASE Category: 11 - ASTRONOMY

NGT 51208 UNIVERSITY OF WISCONSIN - MADISON **10205**
GRADUATE STUDENT RESEARCHERS PROGRAM
 04/25/1994 - 2/31/1996 FY98: -\$696 Total: \$43,304
Prin. Invest.: F K WANG
Tech. Officer: GSFC/G SOFFEN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 51263 UNIVERSITY OF WISCONSIN - MADISON **10206**
GRADUATE STUDENT RESEARCHERS PROGRAM
 06/14/1994 - 6/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: J H BOOSKE
Tech. Officer: HQ/G LESANE
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 51669 UNIVERSITY OF WISCONSIN - MADISON **10207**
GRADUATE STUDENT RESEARCH PROGRAM
 08/15/1996 - 6/30/1997 FY98: -\$1,478 Total: \$20,522
Prin. Invest.: F COOPER
Tech. Officer: HQ/G LESANE
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 2 52227 UNIVERSITY OF WISCONSIN - MADISON **10208**
EXPERIMENT MANAGEMENT SUPPORT FOR PERFORMANCE TUNING
LARGE-SCALE PARALLEL & DISTRIBUTED APPLICATION
 08/04/1997 - 6/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: B P MILLER
Tech. Officer: SSC/C H SCHULBACH
CASE Category: 22 - COMPUTER SCIENCE

NGT 5 46 UNIVERSITY OF WISCONSIN - MADISON **10209**
PRECISE MEASUREMENT OF COSMOLOGICAL PARAMETERS V COSMIC
MICROWAVE BACKGROUND ANISOTROPY
 06/23/1997 - 06/30/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: P TIMBIE
Tech. Officer: GSFC/M S BURRELL
CASE Category: 11 - ASTRONOMY

NGT 5 70 UNIVERSITY OF WISCONSIN - MADISON **10210**
THE X-RAY QUANTUM CALORIMETER: HIGH RESOLUTION SPECTROSCOPY
FOR ASTROPHYSICAL X-RAY OBSERVATIONS
 06/04/1998 - 6/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: D MCCAMMON
Tech. Officer: GSFC/M S BURRELL
CASE Category: 13 - PHYSICS

NGT 5 30037 UNIVERSITY OF WISCONSIN - MADISON **10211**
ASSIMILATION OF SPACEBORNE PASSIVE MICROWAVE MEASUREMENT
MODEL FOR IMPROVING PRECIPITATION RETRIEVAL
 10/17/1996 - 03/31/1999 FY98: \$22,000 Total: \$66,000
Prin. Invest.: G TRIPOLI
Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30119 UNIVERSITY OF WISCONSIN - MADISON **10212**
EVALUATING THE ROLE OF LAND USE IN THE TERRESTRIAL BIOSPHERE
OVER THE LAST CENTURY-ESSF RECIPIENT:NA
 10/01/1997 - 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: J FOLEY
Tech. Officer: GSFC/G ASRAR
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 30146 UNIVERSITY OF WISCONSIN - MADISON **10213**
POROELASTIC ANALYSIS OF COSEISMIC AND POSTSEISMIC DEFORMATION ASSOCIATED WITH THE 1992 LANDERS, CALIF
 08/31/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: H F WANG
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 30160 UNIVERSITY OF WISCONSIN - MADISON **10214**
SCALE-DEPENDENT CLIMATE CHANGE DUE TO DEFORESTATION IN AMAZONIA
 08/31/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: W BRINKMANN
Tech. Officer: GSFC/M Y WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NGT 5 50039 UNIVERSITY OF WISCONSIN - MADISON **10215**
NEW COSMOLOGICAL PROBE: POLARIZATION OF THE COSMIC
 08/04/1997 - 08/31/1999 FY98: \$22,000 Total: \$57,667
Prin. Invest.: TIMBIE
Tech. Officer: HQ/A N URRIDDEN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50053 UNIVERSITY OF WISCONSIN - MADISON **10216**
DYNAMIC REDUCTION AND RELATED CRYSTALLINE NUCLEA
 07/18/1997 - 06/30/1998 FY98: \$0 Total: \$22,000
Prin. Invest.: R COOPER
Tech. Officer: GSFC/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50121 UNIVERSITY OF WISCONSIN - MADISON **10217**
DUSTY PLASMAS IN GALACTIC HALOS
 09/10/1997 - 07/31/1999 FY98: \$22,000 Total: \$44,000
Prin. Invest.: B D SAVAGE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50160 UNIVERSITY OF WISCONSIN - MADISON **10218**
ESTIMATING NET PRIMARY PRODUCTIVITY ALONG A RESOURCE AVAILABILITY GRADIENT USING NDVI IN A BLACK SP
 10/02/1997 - 08/31/1999 FY98: \$44,000 Total: \$44,000
Prin. Invest.: S GOWER
Tech. Officer: HQ/A NURRIDIN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 5 50185 UNIVERSITY OF WISCONSIN - MADISON **10219**
PRECISION MEASUREMENTS OF THE POLARIZATION OF THE COSMIC MICROWAVE BACKGROUND RADIATION
 05/27/1998 - 08/31/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: P TIMBIE
Tech. Officer: HQ/A NURRIDIN
CASE Category: 13 - PHYSICS

NAG 3 1381 UNIVERSITY OF WISCONSIN - MILWAUKEE **10220**
REWETTING OF MONOGROOVE HEAT PIPE IN SPACE STATION RADIATORS
 12/23/1992 - 12/31/1997 FY98: -\$106 Total: \$296,588
Prin. Invest.: S H CHAN
Tech. Officer: LERC/J A PLATT
CASE Category: 46 - MECHANICAL ENGR

NAG 5 4463 UNIVERSITY OF WISCONSIN - MILWAUKEE **10221**
EVOLUTIONARY RELATIONSHIPS OF S. PUTREFACIENS META
 06/20/1997 - 04/30/1998 FY98: \$0 Total: \$107,277
Prin. Invest.: D H NEALSON
Tech. Officer: GSFC/M MEYER
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 8 1205 UNIVERSITY OF WISCONSIN - MILWAUKEE **10222**
JOVE
 09/25/1995 - 08/31/1998 FY98: \$0 Total: \$91,000
Prin. Invest.: T DEFELICE, P ROEBBER
Tech. Officer: MSFC/D SIX
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 9 651 UNIVERSITY OF WISCONSIN - MILWAUKEE **10223**
NEUROENDOCRINE ORGANOID ASSEMBLY IN VITRO
 10/28/1992 - 02/28/1999 FY98: \$0 Total: \$711,000
Prin. Invest.: P I LELKES
Tech. Officer: JSC/G SPAULDING
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NCC 1 260 UNIVERSITY OF WISCONSIN - MILWAUKEE **10224**
MESON CONTRIBUTION TO SPACE RADIATIONS MESON CONTRIBUTION TO SPACE RADIATIONS
 06/13/1997 - 05/23/1999 FY98: \$47,372 Total: \$72,372
Prin. Invest.: J W NORBURY
Tech. Officer: LARC/F A CUCINOTTA, LARC/J W WILSON
CASE Category: 13 - PHYSICS

NCC 3 557 UNIVERSITY OF WISCONSIN - MILWAUKEE **10225**
ODELING OF MEPHISTO CRYSTAL GROWTH
 05/02/1997 - 11/01/1997 FY98: -\$223 Total: \$19,777
Prin. Invest.: S V GARIMELLA, H DE GROH
Tech. Officer: LERC/H DE GROH
CASE Category: 47 - METAL & MATERIALS ENGR

NCC 3 600 UNIVERSITY OF WISCONSIN - MILWAUKEE **10226**
COMPUTATIONAL MODELING OF CRYSTAL GROWTH INCLUDING THERMOSOLUTAL MELT CONVECTION FOR MEPHISTO-4
 03/02/1998 - 01/04/1999 FY98: \$48,971 Total: \$48,971
Prin. Invest.: S V GARIMELLA, H C DEGRON
Tech. Officer: LERC/W M FOSTER
CASE Category: 47 - METAL & MATERIALS ENGR

NGT 40035 UNIVERSITY OF WISCONSIN - MILWAUKEE **10227**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 04/30/1991 - 02/28/1998 FY98: \$0 Total: \$1,182,000
Prin. Invest.: G T MOORE
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 51265 UNIVERSITY OF WISCONSIN - MILWAUKEE **10228**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/08/1994 - 06/30/1997 FY98: \$0 Total: \$66,000
Prin. Invest.: P I LELKES
Tech. Officer: HQ/D HOLLAND
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NGT 5 40039 UNIVERSITY OF WISCONSIN - MILWAUKEE **10229**
THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 01/29/1997 - 02/28/1999 FY98: \$264,174 Total: \$494,173
Prin. Invest.: G T MOORE
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 3 1908 UNIVERSITY OF WISCONSIN - STEVENS POINT **10230**
CONTROL OF KINETICS & DEGRADATION PATH OF HI TEMP POLYMERS VIA THE USE OF SUBS GROUP ELECT EFFS
 07/08/1996 - 09/30/1997 FY98: \$0 Total: \$20,842
Prin. Invest.: J P DROSKE
Tech. Officer: LERC/W B ALSTON
CASE Category: 12 - CHEMISTRY

NAG 8 1210 UNIVERSITY OF WISCONSIN @ WHITEWATER **10231**
JOVE
 09/05/1995 - 08/31/1998 FY98: \$0 Total: \$61,000
Prin. Invest.: D PHANORD
Tech. Officer: MSFC/D SIX
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 4108 UNIVERSITY OF WISCONSIN-OSHKOSH **10232**
REMOTE SENSING OF PHYTOPLANKTON PRODUCTION IN THE SOUTHERN OCEAN
 04/01/1997 - 09/30/1998 FY98: \$0 Total: \$41,235
Prin. Invest.: M P LIZOTTE
Tech. Officer: GSFC/K R ARRIGO
CASE Category: 33 - OCEANOGRAPHY

WYOMING

NAG 1 1294 UNIVERSITY OF WYOMING **10233**
MECHANICAL PROPERTIES EVALUATIONS OF NEW THERMOPLASTIC AND THERMOSET POLYMER MATRICES AND COMPOSITE
 07/11/1991 - 12/31/1998 FY98: \$4,082 Total: \$263,507
Prin. Invest.: D F ADAMS
Tech. Officer: LARC/N J JOHNSTON, LARC/P M HERGENROTHER
CASE Category: 47 - METAL & MATERIALS ENGR

NAG 1 1623 UNIVERSITY OF WYOMING **10234**
AN INVESTIGATION OF AEROSOL MEASUREMENTS FROM THE HALOGEN OCCULTATION EXPERIMENT: VALIDATION, SIZE
 04/26/1994 - 06/30/1998 FY98: \$0 Total: \$178,036
Prin. Invest.: T DESHLER
Tech. Officer: LARC/J G WELLS, JR., LARC/J M RUSSELL III
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 2 877 UNIVERSITY OF WYOMING **10235**
COMPILING DOMAIN SPECIFIC PROGRAM SYNTHESIS SYSTEM S
 01/10/1994 - 09/14/1998 FY98: \$39,257 Total: \$287,845
Prin. Invest.: J V BALLEEN
Tech. Officer: ARC/S LAU
CASE Category: 22 - COMPUTER SCIENCE

NAG 5 2801 UNIVERSITY OF WYOMING **10236**
AN INVESTIGATION OF AEROSOL AND OZONE MEASUREMENTS FROM THE CRYOGENIC LIMB ARRAY ETALON . . .
 11/18/1994 - 1 /30/1997 FY98: \$0 Total: \$164,773
Prin. Invest.: T DESHLER
Tech. Officer: GSFC/C H JACKMAN
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 3301 UNIVERSITY OF WYOMING **10237**
BEHAVIOUR AND PROPERTIES OF THE HARD X-RAY COMPONENT IN QS TEL
 07/23/1996 - 0 /31/1998 FY98: \$0 Total: \$15,000
Prin. Invest.: S HOWELL
Tech. Officer: GSFC/N WHITE
CASE Category: 11 - ASTRONOMY

NAG 5 3379 UNIVERSITY OF WYOMING **10238**
THE THREE DIMENSIONAL STRUCTURE OF ACCRETION REGIONS
 10/25/1996 - 06/30/1997 FY98: \$0 Total: \$57,976
Prin. Invest.: S HOWELL
Tech. Officer: GSFC/D WEST
CASE Category: 11 - ASTRONOMY

NAG 5 3523 UNIVERSITY OF WYOMING **10239**
THE UNIQUE ECLIPSING POLAR HUB
 11/13/1996 - 11 /14/1997 FY98: \$0 Total: \$27,522
Prin. Invest.: S F HOWELL
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 3861 UNIVERSITY OF WYOMING **10240**
ASSESSMENT OF CLIMATIC AND ANTHROPOGENIC IMPACTS OF CYCLE CONSTRAINED BY ATMOSPHERIC MEASUREMENTS AND
 02/03/1997 - 01 /14/1999 FY98: \$42,287 Total: \$86,762
Prin. Invest.: E F UNT, JR. *Prin. Invest.:* NONE
Tech. Officer: GSFC/D E WICKLAND
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3935 UNIVERSITY OF WYOMING **10241**
INFRARED SPECKLE INTERFEROMETRY OF IO
 03/25/1997 - 11 /30/1998 FY98: \$46,000 Total: \$92,066
Prin. Invest.: D F HOWELL
Tech. Officer: GSFC/J BERGSTRAHL
CASE Category: 11 - ASTRONOMY

NAG 5 4233 UNIVERSITY OF WYOMING **10242**
THEORETICAL STUDIES OF BINARY SYSTEMS CONTAINING C
 03/31/1997 - 03 /31/1999 FY98: \$10,347 Total: \$20,347
Prin. Invest.: S B HOWELL
Tech. Officer: GSFC/D K WEST
CASE Category: 11 - ASTRONOMY

NAG 5 4241 UNIVERSITY OF WYOMING **10243**
AN EUVE STUDY OF THE ACCRETION MODE CHANGES IN THE
 04/16/1997 - 04 /4/1998 FY98: \$0 Total: \$12,052
Prin. Invest.: S B HOWELL
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAG 5 4864 UNIVERSITY OF WYOMING **10244**
A BINARY ACCRETION KEY STUDY: X-RAY PHOTOMETRY OF HU AQR
 06/17/1997 - 06/30/1998 FY98: \$0 Total: \$5,200
Prin. Invest.: S B HOWELL
Tech. Officer: GSFC/R PETRE
CASE Category: 11 - ASTRONOMY

NAG 5 4869 UNIVERSITY OF WYOMING **10245**
INVESTIGATING OUTBURSTING TOADS WITH RXTE
 06/26/1997 - 06/30/1998 FY98: \$0 Total: \$13,626
Prin. Invest.: S HOWELL
Tech. Officer: GSFC/J SWANK
CASE Category: 11 - ASTRONOMY

NAG 5 6492 UNIVERSITY OF WYOMING **10246**
UNDERGRADUATE SEARCH FOR EXTRA-SOLAR PLANETS
 10/31/1997 - 09/30/1998 FY98: \$19,925 Total: \$19,925
Prin. Invest.: D HOWELL
Tech. Officer: GSFC/H SMITH
CASE Category: 11 - ASTRONOMY

NAG 5 6628 UNIVERSITY OF WYOMING **10247**
INVESTIGATIONS OF SULFATE AEROSOLS AND POLAR STRATOSPHERIC CLOUDS USING COMBINED OBSERVATIONS FROM
 11/18/1997 - 11/30/1998 FY98: \$108,948 Total: \$108,948
Prin. Invest.: D E HERVIG *Prin. Invest.:* NONE
Tech. Officer: GSFC/A DOUGLASS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAG 5 6735 UNIVERSITY OF WYOMING **10248**
FUV OBSERVATIONS OF PQ GEM
 12/17/1997 - 12/31/1998 FY98: \$40,002 Total: \$40,002
Prin. Invest.: S HOWELL
Tech. Officer: GSFC/R POLIDAN
CASE Category: 11 - ASTRONOMY

NAG 5 6738 UNIVERSITY OF WYOMING **10249**
THE THREE DIMENSIONAL STRUCTURE OF ACCRETIONS REGIONS: ANALYSIS OF EUVE AND ROSAT ARCHIVAL DATA
 12/17/1997 - 12/31/1998 FY98: \$50,000 Total: \$50,000
Prin. Invest.: S HOWELL
Tech. Officer: GSFC/D WEST
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

NAG 5 7036 UNIVERSITY OF WYOMING **10250**
THERE ARE 3 TITLES ON THIS PROPOSAL. SEE OTHER TEXT
 02/19/1998 - 02/28/1999 FY98: \$34,560 Total: \$34,560
Prin. Invest.: S B HOWELL
Tech. Officer: GSFC/R J OLIVERSEN
CASE Category: 11 - ASTRONOMY

NAGW 1276 UNIVERSITY OF WYOMING **10251**
INFRARED SPECKLE INTERFEROMETRY
 04/15/1988 - 05/31/1997 FY98: \$0 Total: \$267,169
Prin. Invest.: R R HOWELL
Tech. Officer: HQ/H C BRINTON, HQ/J H RAHE
CASE Category: 11 - ASTRONOMY

NAGW 2666 UNIVERSITY OF WYOMING **10252**
GENERAL CIRCULATION MODEL SIMULATIONS FOR ANTARCTICA
 09/24/1991 - 09/30/1997 FY98: \$0 Total: \$304,556
Prin. Invest.: T R PARISH, NONE
Tech. Officer: HQ/R H THOMAS, HQ/R A SCHIFFER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAGW 3749 UNIVERSITY OF WYOMING **10253**
VERTICAL PROFILES OF CLOUD CONDENSATION NUCLEI
 10/13/1993 - 01/30/1998 FY98: \$0 Total: \$392,303
Prin. Invest.: T DESHER, J R SNIDER, G VALI
Tech. Officer: HQ/J T SUTTLES, HQ/A C JANETOS
CASE Category: 31 - ATMOSPHERIC SCIENCE

NAS 1 18945 UNIVERSITY OF WYOMING **10254**
SAGE III SCIENCE INVESTIGATION SUPPORT P.I. - DR. GABOR VALI
 01/17/1990 - 01/31/2005 FY98: \$43,000 Total: \$327,750
Prin. Invest.: G VALI
Tech. Officer: LARC/G L MADDREA, LARC/L R MCMASTER
CASE Category: 31 - ATMOSPHERIC SCIENCE

NCC 2 5236 UNIVERSITY OF WYOMING **10255**
PREDICTION OF PARTICLE NUMBER DENSITY AND PARTICLE PROPERTIES IN THE FLOW FIELD OBSERVED BY THE NEPH
 08/26/1997 - 08/31/1998 FY98: \$0 Total: \$15,930
Prin. Invest.: J W NAUGHTON
Tech. Officer: ARC/R E YOUNG
CASE Category: 31 - ATMOSPHERIC SCIENCE

NGT 40050 UNIVERSITY OF WYOMING **10256**
NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM
 07/24/1991 - 08/31/1997 FY98: \$0 Total: \$859,000
Prin. Invest.: P E JOHNSON
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 2 52218 UNIVERSITY OF WYOMING **10257**
IMPLEMENTATION OF NASA-AMES HI-FOGS AT WIRO
 08/14/1996 - 05/31/1999 FY98: \$19,000 Total: \$55,500
Prin. Invest.: C E WOODWARD
Tech. Officer: ARC/J D BREGMAN, ARC/F C WITTEBORN
CASE Category: 11 - ASTRONOMY

NGT 5 40008 UNIVERSITY OF WYOMING **10258**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM
 02/03/1997 - 02/28/1999 FY98: \$212,500 Total: \$382,500
Prin. Invest.: P E JOHNSON
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NGT 9 36 UNIVERSITY OF WYOMING **10259**
TRAINING GRANT
 06/04/1998 - 06/30/1999 FY98: \$22,000 Total: \$22,000
Prin. Invest.: R 3 GANTENBEIN
Tech. Officer: JSC/D G SICKOREZ
CASE Category: 22 - COMPUTER SCIENCE

GUAM

NAG 5 6798 UNIVERSITY OF GUAM - MANGILAO **4227**
ESTABLISHING A CTR OF EXCELLENCE FOR REMOTE SENSING AT THE
UNIVERSITY OF GUAM FOR ENHANCING RESEARCH
 02/25/1998 - 03/31/1999 FY98: \$80,000 Total: \$80,000
Prin. Invest.: M LANDER
Tech. Officer: GSFC/M WEIM
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

COMMONWEALTH OF PUERTO RICO

NAG13 29 UNIV OF PUERTO RICO-MED SCIENCES **10260**
LAND USE PATTERNS AND FECAL CONTAMINATION IN WESTERN PUERTO
RICO
 12/17/1993 - 03/31/1997 FY98: -\$141 Total: \$225,306
Prin. Invest.: J NORAT
Tech. Officer: SSC/A JOYCE
CASE Category: 54 - ENVIRONMENTAL BIOLOGY

NAG 1 1496 UNIVERSITY OF PUERTO RICO - MAYAGUEZ **10261**
TECHNIQUES FOR THE ANALYSIS OF SYSTEMS WITH DAMPING MATERI-
ALS BY THE FRACTIONAL DERIVATIVE
 04/19/1993 - 12/31/1997 FY98: \$0 Total: \$149,258
Prin. Invest.: L SUAREZ
Tech. Officer: LARC/L G HORTA
CASE Category: 46 - MECHANICAL ENGR

NAG 3 1944 UNIVERSITY OF PUERTO RICO - MAYAGUEZ **10262**
LOW TEMPERATURE DESIGN OF A FULL-BRIDGE DC-DC CONVERTER
WITH SYNCHRONOUS RECTIFICATION
 08/09/1996 - 09/30/1997 FY98: \$0 Total: \$104,928
Prin. Invest.: B RAY
Tech. Officer: LERC/R L PATTERSON
CASE Category: 45 - ELECTRICAL ENGR

NAG 5 2909 UNIVERSITY OF PUERTO RICO - MAYAGUEZ **10263**
ESTIMATION OF OCEAN PRIMARY PRODUCTIVITY USING IN-SITU
FLUORESCENCE AND SEAWIFS
 03/10/1995 - 10/31/1997 FY98: \$0 Total: \$150,000
Prin. Invest.: J M LOPEZ
Tech. Officer: GSFC/W E ESAIAS
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 5 3479 UNIVERSITY OF PUERTO RICO - MAYAGUEZ **10264**
USING CBL-TECHNOLOGY TO IMPROVE SCIENCE EDUCATION MASTAP
PROJECT
 11/22/1996 - 06/30/1997 FY98: \$0 Total: \$263,608
Prin. Invest.: B RAMIREZ
Tech. Officer: GSFC/M MATEU
CASE Category: 21 - MATHEMATICS

NAG 5 6031 UNIVERSITY OF PUERTO RICO - MAYAGUEZ **10265**
DYNAMIC TOPOGRAPHY, GRAVITY, & SURFACE DEFORMATION: APPLICATION
TO HAZARD ASSESSMENT OF ERUPTING IS
 10/02/1997 - 09/30/1999 FY98: \$129,353 Total: \$129,353
Prin. Invest.: G MATTIOLI
Tech. Officer: GSFC/H FREY
CASE Category: 32 - GEOLOGICAL SCIENCE

NAG 5 7198 UNIVERSITY OF PUERTO RICO - MAYAGUEZ **10266**
CATS-CARIBBEAN TIME SERIES: A SERIAL OBSERVING STATION IN THE-
NORTHEASTERN CARIBBEAN SEA
 05/04/1998 - 01/30/1999 FY98: \$63,000 Total: \$63,000
Prin. Invest.: J CORREDOR, NONE
Tech. Officer: GSFC/J W CAMBELL
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

NAG 8 1085 UNIVERSITY OF PUERTO RICO - MAYAGUEZ **10267**
CRYSTAL STUDIES
 09/15/1994 - 01/17/1997 FY98: \$0 Total: \$80,788
Prin. Invest.: A BARRIENTAS
Tech. Officer: MSFC/M V LASSE, MSFC/W J LOVE
CASE Category: 13 - PHYSICS

NAG 8 1344 UNIVERSITY OF PUERTO RICO - MAYAGUEZ **10268**
RESEARCH "ELECTROOPTICAL EFFECTS ON THIN ORGANIC FILMS OF
3-NITROANILINE & 2-CYCLO-OCTYLALMINO...."
 04/24/1997 - 03/03/1999 FY98: \$103,121 Total: \$173,762
Prin. Invest.: A LYDERMAN
Tech. Officer: MSFC/B PENN
CASE Category: 13 - PHYSICS

NAG 8 1389 UNIVERSITY OF PUERTO RICO - MAYAGUEZ **10269**
RES: "THERMAL PROPERTIES OF MELT-GLASS TRANSITIONS OF
ORGANIC COMPOUNDS FOR NONLINEAR OPTICAL APPLICATIONS"
 07/09/1997 - 07/08/1998 FY98: \$111,498 Total: \$217,351
Prin. Invest.: A BARRIENTOS
Tech. Officer: MSFC/M VLASSE
CASE Category: 13 - PHYSICS

NAGW 3926 UNIVERSITY OF PUERTO RICO - MAYAGUEZ **10270**
EFFECTS OF MASSIVE RIVERINE INPUT
 04/14/1994 - 04/01/1998 FY98: \$0 Total: \$431,800
Prin. Invest.: J E CORREDOR
Tech. Officer: HQ/A C JANETOS
CASE Category: 33 - OCEANOGRAPHY

NAGW 4614 UNIVERSITY OF PUERTO RICO - MAYAGUEZ **10271**
USING CBL TECHNOLOGY TO IMPROVE SCIENCE EDUCATION IN PUERTO
RICO
 07/20/1995 - 06/30/1998 FY98: \$0 Total: \$152,325
Prin. Invest.: B RAMINEZ
Tech. Officer: HQ/
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG10 236 UNIVERSITY OF PUERTO RICO - MAYAGUEZ **10272**
RECOVERY SYSTEM SEPARATION OF SALTS
 12/18/1997 - 06/19/1998 FY98: \$49,819 Total: \$49,819
Prin. Invest.: B COLON
Tech. Officer: KSC/J SAGER
CASE Category: 59 - LIFE SCIENCE, OTHER

NAG10 243 UNIVERSITY OF PUERTO RICO - MAYAGUEZ **10273**
MASTAP - TEACHER ENHANCEMENT PROJECT
 04/15/1998 - 03/12/2000 FY98: \$197,570 Total: \$197,570
Prin. Invest.: B RAMIREZ
Tech. Officer: KSC/J DIGGS
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG13 54 UNIVERSITY OF PUERTO RICO – MAYAGUEZ **10274**
ANALYSIS OF THE INHERENT AND APPARENT OPTICAL PROPERTIES
 07/16/1997 – 07/15/1999 FY98: \$60,000 Total: \$159,945
Prin. Invest.: R A ARMSTRONG
Tech. Officer: JSC/R L MILLER
CASE Category: 33 – OCEANOGRAPHY

NCC 1 257 UNIVERSITY OF PUERTO RICO – MAYAGUEZ **10275**
MEASUREMENT OF NONLINEAR RECEPTIVITY TO SURFACE IRREGULARITIES
 05/01/1997 – 06/30/1998 FY98: \$1 Total: \$23,370
Prin. Invest.: J B DAVILA-ACRON, M R HAJJ
Tech. Officer: LARC/R A KING
CASE Category: 41 – AERONAUTICAL ENGR

NCC 5 200 UNIVERSITY OF PUERTO RICO – MAYAGUEZ **10276**
PARTNERSHIP FOR SPACE TELECOMMUNICATIONS EDUCATION
 06/17/1997 – 05/31/1999 FY98: \$100,000 Total: \$298,516
Prin. Invest.: R FERNANDEZ-SEIN
Tech. Officer: GSFC/M BUTLER
CASE Category: 45 – ELECTRICAL ENGR

NCC 5 215 UNIVERSITY OF PUERTO RICO – MAYAGUEZ **10277**
"TROPICAL ATMOSPHERIC SCIENCES CENTER"/ THE NASA/PUERTO RICO EPSCOR PROGRAM.
 07/07/1997 – 06/30/1999 FY98: \$500,000 Total: \$1,000,000
Prin. Invest.: J G GONZALEZ
Tech. Officer: GSFC/L KEFFER
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 5 252 UNIVERSITY OF PUERTO RICO – MAYAGUEZ **10278**
TROPICAL CENTER FOR EARTH AND SPACE STUDIES
 10/29/1997 – 06/30/1999 FY98: \$1,898,896 Total: \$1,898,896
Prin. Invest.: D FERNANDEZ-SEIN
Tech. Officer: GSFC/D WILLIAMS
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NCC 5 340 UNIVERSITY OF PUERTO RICO – MAYAGUEZ **10279**
PARTNERSHIP FOR SPATIAL AND COMPUTATIONAL RESEARCH
 06/22/1998 – 05/31/2003 FY98: \$461,917 Total: \$461,917
Prin. Invest.: R VASQUEZ
Tech. Officer: HQ/B WHITE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 30272 UNIVERSITY OF PUERTO RICO – MAYAGUEZ **10280**
GLOBAL CHANGE FELLOWSHIP AWARD
 09/22/1994 – 08/31/1998 FY98: \$0 Total: \$66,000
Prin. Invest.: J CORREDOR
Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NGT 40053 UNIVERSITY OF PUERTO RICO – MAYAGUEZ **10281**
NATIONAL SPACE GRANT FELLOWSHIP PROGRAM
 04/27/1992 – 02/28/1998 FY98: \$0 Total: \$751,000
Prin. Invest.: J G GONZALES
Tech. Officer: HQ/E T SCHWARTZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NGT 51340 UNIVERSITY OF PUERTO RICO – MAYAGUEZ **10282**
GRADUATE STUDENT RESEARCHERS PROGRAM
 07/29/1994 – 06/30/1997 FY98: \$0 Total: \$44,000
Prin. Invest.: R E VASQUEZ
Tech. Officer: SSC/A JOYCE
CASE Category: 45 – ELECTRICAL ENGR

NGT 5 40012 UNIVERSITY OF PUERTO RICO – MAYAGUEZ **10283**
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.
 01/30/1997 – 02/28/1999 FY98: \$187,500 Total: \$337,500
Prin. Invest.: J G GONZALEZ *Prin. Invest.:* NONE
Tech. Officer: GSFC/L KEFFER
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 3473 UNIV OF PUERTO RICO HUMACAO UNIV COLLEGE **10284**
MATHEMATICS, SCIENCE AND TECHNOLOGY AWARDS FOR TEA ENHANCEMENT (MASTAP)
 11/22/1996 – 12/31/1998 FY98: \$0 Total: \$355,482
Prin. Invest.: A M GIERBOLINI
Tech. Officer: GSFC/M MATEU
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 8 1003 UNIV OF PUERTO RICO HUMACAO UNIV COLLEGE **10285**
JOVE
 01/25/1994 – 05/31/1998 FY98: \$0 Total: \$117,714
Prin. Invest.: C HERNANDEZ, F ZYPMAN
Tech. Officer: MSFC/F SIX
CASE Category: 13 – PHYSICS

NAGW 4619 UNIV OF PUERTO RICO HUMACAO UNIV COLLEGE **10286**
HUC-UPR MATHEMATICS, SCIENCE, AND TECHNOLOGY TEACHER AND CURRICULUM ENHANCEMENT PROGRAM (MASTAP)
 07/28/1995 – 06/30/1998 FY98: \$0 Total: \$173,313
Prin. Invest.: A M GIERBOLINI
Tech. Officer: HQ/B L WHITE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAG 5 6428 UNIVERSITY OF PUERTO RICO–RIO PIEDRAS **10287**
LAND MANAGEMENT IN THE TROPICS AND ITS EFFECTS ON THE GLOBAL ENVIRONMENT
 10/09/1997 – 08/14/1998 FY98: \$1,365,000 Total: \$1,365,000
Prin. Invest.: B WEINER
Tech. Officer: GSFC/J MALONE
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

NAGW 4059 UNIVERSITY OF PUERTO RICO–RIO PIEDRAS **10288**
LAND MANAGEMENT IN THE TROPICS AND ITS EFFECTS ON GLOBAL ENVIRONMENT
 08/08/1994 – 08/14/1997 FY98: \$0 Total: \$1,800,000
Prin. Invest.: B R WEINER
Tech. Officer: HQ/B L WHITE
CASE Category: 39 – ENVIRONMENTAL SCI, OTHER

NCCW 56 UNIVERSITY OF PUERTO RICO–RIO PIEDRAS **10289**
NASA EPSCOR PROGRAM
 08/16/1994 – 04/30/1998 FY98: \$0 Total: \$1,500,000
Prin. Invest.: B WINNER, J G LAGO
Tech. Officer: HQ/L KEFFER, HQ/E T SCHWARTZ
CASE Category: 99 – MULTI INTERDISCIPL, OTHER

AUSTRALIA

NGT 5 90064 UNIVERSITY OF TURABO 10290
ENGINEERING PREPARATORY PROJECT FOR HISPANIC HIGH
 03/04/1997 - 02/28/1998 FY98: \$192,998 Total: \$387,682
Prin. Invest.: B A MARRERO
Tech. Officer: GSFC/M MATEU
CASE Category: 49 - ENGINEERING, OTHER

AUSTRALIA

NAG 2 1252 AUSTRALIAN NATIONAL UNIVERSITY 10295
INSECT-BASED VISION FOR AUTONOMOUS VEHICLES: A FEASIBILITY STUDY
 09/04/1998 - 11/14/1998 FY98: \$21,502 Total: \$21,502
Prin. Invest.: M V SRINIVASAN
Tech. Officer: ARC/C C JORGENSEN, ARC/C L JACKSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAG 1 1846 UNIVERSITY OF QUEENSLAND 10296
STUDIES OF THE UNSTEADY EXPANSION IN EXPANSION TUBES
 06/06/1996 - 12/31/1998 FY98: \$16,500 Total: \$53,501
Prin. Invest.: R G MORGAN, P A JACOBS
Tech. Officer: LARC/R C ROGERS, LARC/G Y ANDERSON
CASE Category: 41 - AERONAUTICAL ENGR

BRAZIL

NAGW 4961 UNIVERSITY OF RIO DE JANEIRO 10297
EPIDEMIOLOGICAL FIELD MAPPING AND DATA ACQUISITION
 03/13/1996 - 02/28/1997 FY98: \$0 Total: \$24,500
Prin. Invest.: G BRETAS
Tech. Officer: HQ/M AVERNER
CASE Category: 59 - LIFE SCIENCE, OTHER

CANADA

NAG 2 1040 MCGILL UNIVERSITY 10298
CELLULAR DECOMPOSITION BASED HYBRID-HIERARCHICAL CONTROL SYSTEMS WITH APPLICATIONS TO FLIGHT
 04/30/1996 - 11/30/1998 FY98: \$18,750 Total: \$68,286
Prin. Invest.: P E CAIN
Tech. Officer: ARC/G MEYER
CASE Category: 49 - ENGINEERING, OTHER

NAG 5 4197 UNIVERSITY OF ALBERTA 10299
A PROPOSAL TO MAKE AVAILABLE THE MAGNETOMETER DATA THE INTERNATIONAL MAGNETOSPHERIC STUDY (1976-1979)
 03/15/1997 - 03/14/1998 FY98: \$0 Total: \$9,800
Prin. Invest.: G ROSTOKER
Tech. Officer: GSFC/J WILLETT
CASE Category: 11 - ASTRONOMY

NAS 5 30294 YORK UNIVERSITY 10300
HUBBLE SPACE TELESCOPE GUARANTEED TIME OBSERVATION PROGRAM SUPPORT
 01/20/1988 - 03/31/1998 FY98: \$0 Total: \$896,188
Prin. Invest.: J J CALDWELL
Tech. Officer: GSFC/J K KALINOWSKI
CASE Category: 42 - ASTRONAUTICAL ENGR

NASA'S UNIVERSITY PROGRAM

CHILE

NAS 5 1925 UNIVERSITY OF CHILE 10301
M&O OF MINOR RACK FACILITIES IN CHILE
 09/21/1962 - 01/30/1998 FY98: \$682,000 Total: \$96,919,119
Prin. Invest.: E DIAZ
Tech. Officer: GSFC/W J BODIN, GSFC/D SPINTMAN
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

GREAT BRITAIN

NAG 2 1260 UNIVERSITY OF SUSSEX 10302
ROUTE LEARNING IN ANTS: STRATEGIES FOR THE RAPID ACQUISITION OF NAVIGATIONAL INFORMATION
 09/02/1998 - 01/31/1999 FY98: \$10,522 Total: \$10,522
Prin. Invest.: T COLLECT
Tech. Officer: ARC/C C JORGENSEN, ARC/C L JACKSON
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

NAGW 2127 UNIVERSITY OF WALES 10303
A MORE EFFICIENT FINITE ELEMENT ALGORITHM FOR HIGH SPEED COMPRESSIBLE FLOW
 06/15/1990 - 04/25/1999 FY98: \$50,000 Total: \$609,400
Prin. Invest.: O ZIENKIEWICZ
Tech. Officer: ARC/K K GUPTA, ARC/K L PETERSEN
CASE Category: 41 - AERONAUTICAL ENGR

NCC 1 222 UNIVERSITY OF WALES 10304
PASCO2-AN UNIQUE COMPUTER PROGRAM FOR EXACT BUCKLING AND VIBRATION DESIGN AND ANALYSIS OF ADVANCED
 03/27/1996 - 06/01/1998 FY98: \$5,001 Total: \$60,001
Prin. Invest.: D V WILLIAMS
Tech. Officer: LARC/D H STARNES, LARC/M M MCGOWAN
CASE Category: 41 - AERONAUTICAL ENGR

ISRAEL

NCC 2 995 ISRAEL INSTITUTE OF TECHNOLOGY 10305
A COGNITIVE GAME THEORETIC ANALYSIS OF CONFLICT ALERTS IN AIR TRAFFIC CONTROL
 08/12/1997 - 10/31/1998 FY98: \$40,000 Total: \$60,000
Prin. Invest.: D GOPHER, I EREN
Tech. Officer: AF C/R W REMINGTON
CASE Category: 69 - PSYCHOLOGY, OTHER

NCC 2 1023 ISRAEL INSTITUTE OF TECHNOLOGY 10306
INTERACTIVE DISPLAY FORMATS FOR AIR TRAFFIC CONFLICT RESOLUTION TRAJECTORY PLANNING
 02/26/1998 - 01/11/1999 FY98: \$55,277 Total: \$55,277
Prin. Invest.: A J BRUNWALD
Tech. Officer: AR C/S R ELLIS
CASE Category: 41 - AERONAUTICAL ENGR

NAG 3 2063 TEL-AVIV UNIVERSITY 10307
SPECTRAL CONTENT OF SOLAR RADIATION ON MARTIAN SURFACE
 07/23/1997 - 05/31/1999 FY98: \$10,343 Total: \$32,343
Prin. Invest.: J APFLEBAUM
Tech. Officer: LERC/C R BARAONA, LERC/D BRINKER
CASE Category: 13 - PHYSICS

NAG 1 1823 WEIZMANN INSTITUTE OF SCIENCE 10308
ADVANCED MULTIGRID SOLVERS FOR FLUID DYNAMICS
 04/02/1996 – 10/31/1997 FY98: \$1 Total: \$68,001
Prin. Invest.: A BRANDT, J RUGE
Tech. Officer: LARC/J C SOUTH, JR., LARC/J L THOMAS
CASE Category: 21 – MATHEMATICS

NAG 5 3409 NOVOSIBIRSK STATE UNIVERSITY 10294
INVESTIGATION OF GLOBAL INFLUENCE OF NITROGEN OXIDES AND SULFUR DIOXIDE EMISSION
 10/24/1996 – 11/30/1998 FY98: \$0 Total: \$8,500
Prin. Invest.: I G DEMINOV
Tech. Officer: GSFC/R W STEWART
CASE Category: 31 – ATMOSPHERIC SCIENCE

ITALY

NAG 1 2076 UNIVERSITY OF ROME 10309
ANALYSIS OF UNSTEADY FLOW PHENOMENA – VORTEX AND SHOCK – BOUNDARY LAYER INTERACTIONS
 05/29/1998 – 09/30/1998 FY98: \$13,000 Total: \$13,000
Prin. Invest.: F GRASSO
Tech. Officer: LARC/T B BATSKI
CASE Category: 41 – AERONAUTICAL ENGR

SCOTLAND

NAG 2 1241 UNIVERSITY OF GLASGOW 10312
PARALLEL FINITE ELEMENT SIMULATION OF 'ATOMISTIC' EFFECTS IN SUB-0.1 MICRON DEVICES
 07/21/1998 – 09/30/1998 FY98: \$75,000 Total: \$75,000
Prin. Invest.: A ASENOV
Tech. Officer: ARC/S SAINI
CASE Category: 45 – ELECTRICAL ENGR

NETHERLANDS

NAG 1 1826 DELFT UNIV OF TECHNOLOGY-NETHERLANDS 10310
THE ROLE OF GEOMETRIC IMPERFECTIONS BY THE STABILITY ANALYSIS OF THIN SHELLS
 04/09/1996 – 11/30/1998 FY98: \$25,000 Total: \$54,001
Prin. Invest.: D ARBOCZ
Tech. Officer: LARC/D H STARNES, LARC/D P NEMETH
CASE Category: 41 – AERONAUTICAL ENGR

WEST GERMANY

NAG 9 951 TECHNICAL UNIVERSITY OF MUNICH 10313
ANALYSIS OF LUNAR BASE LIFE SUPPORT SYSTEMS WITH DIFFERENT CLOSURE LEVELS
 07/21/1997 – 07/23/1998 FY98: \$0 Total: \$10,000
Prin. Invest.: P ECKART
Tech. Officer: JSC/K E HENDERSON, JSC/D L HENNINGER
CASE Category: 49 – ENGINEERING, OTHER

NEW ZEALAND

NAG 2 1168 UNIVERSITY OF WAIKATO 10311
SELF-MOTION & DEPTH ESTIMATION FROM IMAGE SEQUENCES
 11/25/1997 – 10/31/1998 FY98: \$18,740 Total: \$18,740
Prin. Invest.: N AVAILABLE
Tech. Officer: ARC/N AVAILABLE
CASE Category: 41 – AERONAUTICAL ENGR

RUSSIA

NCC 1 238 ALL RUSSIAN SCIENCE RESEARCH INSTITUTE VIAM 10291
AN INVESTIGATION OF SHEET AND STRUCTURAL CONCEPTS FROM ALLOY 1441
 08/23/1996 – 11/18/1998 FY98: \$60,000 Total: \$120,000
Prin. Invest.: J N FRIDLYANDER
Tech. Officer: LARC/R K BIRD, LARC/W B LISAGOR
CASE Category: 47 – METAL & MATERIALS ENGR

NCC 1 246 ALL RUSSIAN SCIENCE RESEARCH INSTITUTE VIAM 10292
MODEL ESTIMATION OF PHOTOCHEMICAL TRANSFORMATION AND TRANSPORT OF SUB-AND SUPERSONIC AIRCRAFT
 11/06/1996 – 03/01/1998 FY98: \$0 Total: \$39,780
Prin. Invest.: I L KAROL
Tech. Officer: LARC/W L GROSE, LARC/R S ECKMAN
CASE Category: 31 – ATMOSPHERIC SCIENCE

NCC 1 240 INSTITUTE OF THEORETICAL AND APPLIED MECHANICS 10293
SUPERSONIC LEADING EDGE RECEPTIVITY
 07/31/1996 – 12/30/1997 FY98: \$0 Total: \$40,000
Prin. Invest.: A A MASLOV
Tech. Officer: LARC/D M BUSHNELL
CASE Category: 41 – AERONAUTICAL ENGR

NASA'S UNIVERSITY PROGRAM

APPENDIX

CROSS INDEX BY FIELD OF SCIENCE AND ENGINEERING

The fields used here are specified by Amendment J, "Standard Classification of Fields of Science and Engineering," to Office of Management and Budget (OMB) Circular A-46, "Standards for Statistical Surveys." Field codes are interpreted as follows:

| | | | | | | | |
|--------------------------------------|--------------------------------------|---------------------------------------------------------------------|------------------------------|----------------------|-----------------------|-------------------------|----------------------|
| PHYSICAL SCIENCES | | ENVIRONMENTAL SCIENCES (Terrestrial and extraterrestrial) | | LIFE SCIENCES | | SOCIAL SCIENCES | |
| 11 | ASTRONOMY | 31 | ATMOSPHERIC SCIENCES | 51 | BIOLOGICAL SCIENCES | 71 | ANTHROPOLOGY |
| 12 | CHEMISTRY | 32 | GEOLOGICAL SCIENCES | 54 | ENVIRONMENTAL BIOLOGY | 72 | ECONOMICS |
| 13 | PHYSICS | 33 | OCEANOGRAPHY | 55 | AGRICULTURAL SCIENCES | 73 | HISTORY |
| 19 | PHYSICAL SCIENCES, NEC* | 39 | ENVIRONMENTAL SCIENCES, NEC* | 56 | MEDICAL SCIENCES | 74 | LINGUISTICS |
| | | | | 59 | LIFE SCIENCES, NEC* | 75 | POLITICAL SCIENCE |
| | | | | | | 76 | SOCIOLOGY |
| | | | | | | 79 | SOCIAL SCIENCE, NEC* |
| MATHEMATICAL/COMPUTER SCIENCE | | ENGINEERING | | PSYCHOLOGY | | OTHER SCIENCES** | |
| 21 | MATHEMATICS | 41 | AERONAUTICAL | 61 | BIOLOGICAL | 99 | ALL DISCIPLINE(S) |
| 22 | COMPUTER SCIENCES | 42 | ASTRONAUTICAL | 62 | SOCIAL SCIENCES | | |
| 29 | MATHEMATICAL COMPUTER SCIENCES, NEC* | 43 | CHEMICAL | 69 | PSYCHOLOGY, NEC* | | |
| | | 44 | CIVIL | | | | |
| | | 45 | ELECTRICAL | | | | |
| | | 46 | MECHANICAL | | | | |
| | | 47 | METALLURGY AND MATERIALS | | | | |
| | | 49 | ENGINEERING, NEC* | | | | |

- * Not elsewhere classified (For interdisciplinary projects and others not listed by discipline name)
- ** For interdisciplinary projects which cannot be classified within any of the preceding main fields

Abbreviations used in the *Technical Officer Location* column are discussed in the prefatory pages.

| FIELD CODE | INSTITUTION | TECHNICAL OFFICER | TECH OFF LOC. | FIRST PRINCIPAL INVESTIGATOR | AGREEMENT NUMBER | PAGE NUM. |
|------------|--------------------|-------------------|---------------|------------------------------|------------------|-----------|
| 11 | ARIZONA STATE UNIV | D K WEST | GSFC | M POLITANO | NAG 5 3892 | 23 |
| 11 | ARIZONA STATE UNIV | D NAVA | GSFC | P R BUSECK | NAG 5 4308 | 23 |
| 11 | ARIZONA STATE UNIV | D WEST | GSFC | A P COWLEY | NAG 5 3004 | 23 |
| 11 | ARIZONA STATE UNIV | D WEST | GSFC | R WINDHORST | NAG 5 6740 | 24 |
| 11 | ARIZONA STATE UNIV | D WEST | GSFC | S STARRFIELD | NAG 5 6741 | 24 |
| 11 | ARIZONA STATE UNIV | J BOYCE | GSFC | D GREELEY | NAG 5 4232 | 23 |
| 11 | ARIZONA STATE UNIV | J BOYCE | GSFC | D WYCKOFF | NAG 5 4280 | 23 |
| 11 | ARIZONA STATE UNIV | J BOYCE | GSFC | P R BUSECK | NAG 5 6108 | 24 |
| 11 | ARIZONA STATE UNIV | J BOYCE | HQ | L LESHIN | NAG 5 7540 | 24 |
| 11 | ARIZONA STATE UNIV | J BOYCE | HQ | P A WEHINGER | NAG 5 7199 | 24 |
| 11 | ARIZONA STATE UNIV | J BOYCE | HQ | S WYCKOFF | NAG 5 7057 | 24 |
| 11 | ARIZONA STATE UNIV | J BOYCE | HQ | T G SHARP | NAG 5 7285 | 24 |
| 11 | ARIZONA STATE UNIV | J BOYCE | GSFC | D L GRAF | NAG 5 4439 | 23 |
| 11 | ARIZONA STATE UNIV | J M BOYCE | GSFC | M S EDGETT | NAG 5 4296 | 23 |
| 11 | ARIZONA STATE UNIV | J M BOYCE | GSFC | P SCHMIDTKE | NAG 5 3286 | 23 |
| 11 | ARIZONA STATE UNIV | J SWANK | GSFC | L M ZIURY | NAGW 2989 | 25 |
| 11 | ARIZONA STATE UNIV | L J CAROFF | HQ | R E BLANKENSHIP | NAG 5 6831 | 24 |
| 11 | ARIZONA STATE UNIV | M MEYER | GSFC | R MUKHERJEE | NAG 5 6956 | 381 |
| 11 | BARNARD COLLEGE | J P NORRIS | GSFC | R MUKHERJEE | NAG 5 7341 | 381 |
| 11 | BARNARD COLLEGE | J P NORRIS | GSFC | D J SCHROEDER | NAG 5 1620 | 567 |
| 11 | BELOIT COLLEGE | S SOBIESKI | GSFC | S CHAKRABARTI | NGT 51333 | 291 |
| 11 | BOSTON UNIV | D HOLLAND | HQ | A P MARSCHER | NAG 5 3829 | 287 |
| 11 | BOSTON UNIV | D K WEST | GSFC | D P CLEMENS | NAG 5 1997 | 286 |
| 11 | BOSTON UNIV | D WEST | GSFC | D P CLEMENS | NAG 5 3237 | 287 |
| 11 | BOSTON UNIV | D WEST | GSFC | J M JACKSON | NAG 5 2343 | 287 |
| 11 | BOSTON UNIV | D WEST | GSFC | J R MATTOX | NAG 5 3384 | 287 |
| 11 | BOSTON UNIV | D WEST | GSFC | D CHAKRABARTI | NAG 5 3999 | 287 |
| 11 | BOSTON UNIV | H HASAN | GSFC | D MENDILLO | NAG 5 4991 | 288 |
| 11 | BOSTON UNIV | J BERGSTRALH | GSFC | N CROOKER | NAG 5 6658 | 289 |
| 11 | BOSTON UNIV | J LING | GSFC | N U CROOKER | NAG 5 7049 | 289 |
| 11 | BOSTON UNIV | J LING | GSFC | A P MARSCHER | NAG 5 3829 | 287 |
| 11 | BOSTON UNIV | J P NORRIS | GSFC | A P MARSCHER | NAG 5 7323 | 289 |
| 11 | BOSTON UNIV | J P NORRIS | GSFC | J R MATTOX | NAG 5 3806 | 287 |
| 11 | BOSTON UNIV | J P NORRIS | GSFC | A MARSCHER | NAG 5 3291 | 287 |
| 11 | BOSTON UNIV | J SWANK | GSFC | | | |

| FIELD CODE | INSTITUTION | TECHNICAL OFFICER | TECH OFF LOC. | FIRST PRINCIPAL INVESTIGATOR | AGREEMENT NUMBER | PAGE NUM. |
|---------------|-------------------------|----------------------|---------------------|---------------------------------|---------------------|--------------|
| 11 | BOSTON UNIV | J SWANK | GSFC | A MARSCHER | NAG 5 4245 | 287 |
| 11 | BOSTON UNIV | J SWANK | GSFC | A MARSCHER | NAG 5 7331 | 289 |
| 11 | BOSTON UNIV | J SWANK | GSFC | A MARSCHER | NAG 5 7338 | 289 |
| 11 | BOSTON UNIV | J SWANK | GSFC | J MATTOX | NAG 5 6335 | 289 |
| 11 | BOSTON UNIV | J SWANK | GSFC | J R MATTOX | NAG 5 3830 | 287 |
| 11 | BOSTON UNIV | L J CAROFF | HQ | J M JACKSON | NAGW 4024 | 290 |
| 11 | BOSTON UNIV | L QUAIFE | ARC | J P CLEMENS | NAG 2 1054 | 286 |
| 11 | BOSTON UNIV | M FORMAN | GSFC | J CROOKER | NAG 5 4708 | 288 |
| 11 | BOSTON UNIV | R BEEBE | GSFC | M MENDILLO | NAG 5 6755 | 289 |
| 11 | BOSTON UNIV | R HOFFMAN | GSFC | H SPENCE | NAS 5 97147 | 291 |
| 11 | BOWIE STATE UNIV | D A WEIDOW | GSFC | P C CHI | NCC 5 145 | 254 |
| 11 | BOWIE STATE UNIV | D MENCHAN | GSFC | I LANGDON | NAG 5 3546 | 254 |
| 11 | BOWIE STATE UNIV | W CAMPBELL | GSFC | A MAREBOYANA | NAG 5 2829 | 253 |
| 11 | BROWN UNIV | B CAMPBELL | GSFC | P H SCHULTZ | NAG 5 7082 | 475 |
| 11 | BROWN UNIV | D G SICKOREZ | JSC | J W HEAD | NGT 9 8 | 476 |
| 11 | BROWN UNIV | D NAVA | GSFC | D C HESS | NAG 5 4650 | 475 |
| 11 | BROWN UNIV | D NAVA | GSFC | D M PIETERS | NAG 5 4303 | 474 |
| 11 | BROWN UNIV | G SOFFEN | GSFC | H TIMBIE | NGT 5 50001 | 476 |
| 11 | BROWN UNIV | J BOYCE | GSFC | H HEAD | NAG 5 4231 | 474 |
| 11 | BROWN UNIV | J BOYCE | GSFC | H W HEAD | NAG 5 4676 | 475 |
| 11 | BROWN UNIV | J M BOYCE | GSFC | D J RUTHERFORD | NAG 5 4438 | 475 |
| 11 | CALIFORNIA INST OF TECH | A NURRIDIN | HQ | S G DJORGOVSKI | NGT 5 50215 | 52 |
| 11 | CALIFORNIA INST OF TECH | B CAMPBELL | GSFC | J BEAUCHAMP | NAG 5 7081 | 49 |
| 11 | CALIFORNIA INST OF TECH | B WORRALL | GSFC | E STONE | NAG 5 6912 | 49 |
| 11 | CALIFORNIA INST OF TECH | D F NAVA | GSFC | C EPSTEIN | NAG 5 4773 | 48 |
| 11 | CALIFORNIA INST OF TECH | D HOLLAND | GSFC | A E LANGE | NAG 5 3465 | 45 |
| 11 | CALIFORNIA INST OF TECH | D K WEST | GSFC | E T SOIFER | NAG 5 3560 | 45 |
| 11 | CALIFORNIA INST OF TECH | D K WEST | GSFC | E PHINNEY | NAG 5 7034 | 49 |
| 11 | CALIFORNIA INST OF TECH | D K WEST | GSFC | F M GOLDBREICH | NAG 5 7008 | 49 |
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